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THE NATURE OF INTUITION*

BY ERIC BERNE, M. D.

I. Introduction

It appears that under favorable conditions most, if not all, human beings, particularly specialists in various fields of science and commerce, can make judgments about the everyday matters of their concern by the use of functions whose processes are not ordinarily verbalized. In practice, judgments of reality are probably made through the integration of a series of types of cognitive processes (cf. Bergson[1]). It is possible, for purposes of investigation, to separate this possibly continuous series into artificial segments. In different situations, different segments of the series would make the major contribution to the verbalized perception.

First, judgments can be made by means of logic and actively directed, verbalized perception: e. g., the clinical diagnosis of schizophrenia as made by a group of medical students. This is a conscious process.

Second, they can be made by means of unverbalized processes and observations based on previously formulated knowledge which has become integrated with the personality through long usage, and therefore functions below the level of consciousness; very much as the act of tying a shoelace must be learned by consciously thought-out steps, but later is performed "automatically" because the kinesthetic image has become integrated with the personality to such an extent that conscious awareness of how it is done is no longer required. This may be called a "secondarily subconscious" process. (Cf. "repression proper" or "after-expulsion"—Freud.) The diagnosis of schizophrenia as made by a specialist may be based on such processes and sensory clues, which, having been verbalized at one time, are perceived and integrated at a later period below the threshold of consciousness (subconsciously**). He may make the diagnosis on sight and perhaps only later verbalize his mental processes for his students. The group

*Based on a paper read before the annual joint meeting of the San Francisco and Los Angeles Psychoanalytic Societies on October 18, 1947.

**This is a legitimate use of a word many people prefer to avoid. Here it is comfortable since it includes both pre-conscious and unconscious.

of students makes the diagnosis by a conscious synthetic process, while the specialist may make it by an intuitive process which he is afterward able to analyze.

Third, judgments can be made with the help of clues whose formulation has not yet become and may never become conscious, but which nevertheless are based on sense impressions, including smell. (Cf. "primal repression"—Freud.) This may be called a "primarily subconscious" process. The professional weight-guesser makes continual use of this intuitive process. His uncannily accurate guesses are based on sensory data which he cannot adequately analyze or verbalize, just as the painter may uncannily convey the age and vicissitudes of his subject through his non-verbal medium. The present study is chiefly concerned with this type of intuition, and the writer's observations show that such intuitions are synthesized from discrete sensory elements ("subliminal perceptions") whose perception and synthesis both take place below the threshold of consciousness. Analagous perceptions are spoken of by Freud as forming part of the "day's residue" in dreams.

Fourth, they may be made in ways which are quite unexplainable by what we know at present concerning sense-perceptions.

The first method is evidently a function of the conscious perceptive system. The second and third methods are probably functions of preconscious systems, since they can be brought into conscious analysis relatively easily, and because of their analogy to the use of preconscious material in dreams. The indications are that the fourth method is a function of unconscious systems (cf. Eisenbud[2]).

It is probable that judgments, about other people at any rate, are in most cases, if not all, a function of the whole epistemological series and rarely, if ever, the outcome of only one of these artificial segments of it. Since this discussion is mainly concerned with the third method, however, that which has been termed "primarily subconscious," it should be noted that various authors have expressed valuable opinions which can assist in differentiating the use of such processes in making judgments about people.

There is a class of "hunches" in everyday life and of judgments in clinical practice which appear to lack a specific basis in conscious or preconscious experience, and which probably belong here. Such are the experiences of "listening with the third ear"

described by T. Reik.[3] Since we can throw little light on their mechanisms, they will be called simply "hunches." E. J. Kempf[4], somewhat like Darwin, speaks of understanding emotional states in others by "reflex imitation through similar brief muscle tensions," and states that by this token "in a certain sense we think with our muscles." This method of judgment may be called "intuition through subjective experience" (proprioception). A similar method can be useful clinically in interpreting handwriting, Bender Gestalt tests, and some material in Rorschach tests. This is a little different from the type of intuitive judgment which is based upon extensive clinical experience, such as has been cited in the case of weight-guessers and which will be enlarged upon here in later clinical material. In Jung's terminology,[5] intuitions of the latter type are "objective" and "concrete." Such intuitions may be termed "intuition through objective experience."

Many authors have described other types of "intuition" under that name[6] or something similar, such as "inspiration,"[7] "insight,"[8] etc. On the other hand, many of the magnificent edifices of the philosophers, such as Kant, Descartes, and Locke, use the concept of intuition as one of their building blocks. If we aspire here only to consider what is commonly called "clinical intuition," we avoid the dangers run by those who try to scale the walls of philosophy. The philosophical aspects have been discussed by K. W. Wild.[9]

For the present purpose it is only necessary to define intuition sufficiently to separate it from its nearest neighbors. A pragmatic definition, based on clinical experience, may be stated as follows:

Intuition is knowledge based on experience and acquired through sensory contact with the subject, without the "intuiter" being able to formulate to himself or others exactly how he came to his conclusions. Or in psychological terminology, it is knowledge based on experience and acquired by means of pre-verbal unconscious or preconscious functions through sensory contact with the subject. This approximates the definition of Jung,[5] who says that intuition "is that psychological function which transmits perceptions in an unconscious way." It is even something like the dictionary definition: "the quick perception of truth without conscious attention or reasoning." (Funk & Wagnalls.)

This concept of clinical intuition implies that the individual can know something without knowing how he knows it. ("That distant

cow is sick.") If he can correctly formulate the grounds for his conclusions, we say that they are based on logical thought ("This cow is sick because. . . .") and actively directed observation ("This is obviously the sick one."). If his conclusion seems to be based on something other than direct or indirect sensory contact with the subject ("Somewhere a cow is sick"), then we cannot help but be reminded of what J. B. Rhine calls "extra-sensory perception."[10]

After careful consideration, it will be found that an interesting corollary must be added to this definition. Not only is the individual unaware of how he knows something; he may not even know what it is that he knows, but behaves or reacts in a specific way as if (*als ob*) his actions or reactions were based on something that he knew.

The problem of intuition is related to a general question which may be stated thus:

From what data do human beings form their judgments of reality?

(By *judgment* is meant an image of reality which affects behavior and feelings toward reality. An *image* is formed by integrating sensory and other impressions with each other and with inner tensions based on present needs and past experiences. By *reality* is meant the potentialities for interaction of all the energy systems in the universe; this implies the past.)

Regarding the special matter of concern here, the "primarily subconscious" material which forms the basis for judgments about external reality, Reik[3] has made some formulations with which the present conclusions, based on clinical experimental material, are in agreement. This is all the more impressive since the latter were arrived at independently after the pertinent observations had been made, during: (1) Attempts to intuit single specific factors in a series of several thousand cases. (2) Attempts to intuit many different factors about single individuals.

Curiously enough, among philosophers, the man whose ideas come closest to these conclusions is one of the most ancient. It was Aristotle who described what has been called "intuitive induction" as being based on the ability of the organism, first to experience sense-perceptions; at a higher level of organization, to retain sense-perceptions; and at a still higher level, to systematize such memories. "We conclude that these states of knowledge are

neither innate in a determinate form, nor developed from other higher states of knowledge, but from sense-perception. It is like a rout in battle stopped by first one man making a stand and then another, until the original formation has been restored. . . ."[11] It is also apparent how closely Aristotle's remarks are related to the discussion of the similarities between neurophysiological phenomena and the functioning of calculating machines which is part of the subject of cybernetics according to N. Wiener.[12]

The clinical material has a special bearing on one aspect of this question: Namely, from what data other than rational conclusions and consciously perceived sense impressions do human beings form judgments about external reality? ("Consciously perceived sense impressions" are those which can be readily verbalized, in contrast to "subconscious perceptions"[13] and the "subliminal cues" of modern psychology.)

II. Clinical Material

a. *Observations of Single Specific Factors in Large Numbers of Individuals*

These observations were made at an Army Separation Center in the latter part of 1945. One part of the processing consisted of a medical examination carried out in assembly-line fashion. Each soldier went down a line of booths, and in each booth certain organ systems were examined and the results noted in the appropriate places on a printed form. The writer was in a booth at the end of the line. The time available for the "psychiatric examination" varied on different days from 40 to 90 seconds. About 25,000 soldiers came down the line in less than four months. Several studies were made during this period, and about 10,000 cases were available for the study of the intuitive process.

The study was not formulated premeditatively. The writer became interested gradually in the nature of the process which with practice enabled him to detect and distinguish accurately some categories of human beings after 10 or 20 seconds of inspection.

The men all wore the same garments, a maroon bathrobe and a pair of cloth slippers. The examiner sat behind a desk, facing the door of the booth. After a soldier was "examined," the appropriate blank was filled in on the form, and the next candidate was summoned by calling "Next!" As one soldier left, the next one

shuffled in, and without any instruction, walked toward a chair beside the desk to the right of the examiner and sat down. Some soldiers kept their papers in their hands and some handed them to the examiner. These forms were looked at after the interview was ended. It was not necessary to know the names of the soldiers.

The "examination" consisted of two stock questions which were asked after a few moments of inspection: "Are you nervous?" and "Have you ever been to a psychiatrist?" At first, that was all, unless there were special indications. During this preliminary period, an attempt was made to predict from silent observation of the soldier how each man would answer the two stock questions in that particular situation. It was found that this could be done with surprising accuracy. The question then arose as to how these predictions were made, since this was not immediately apparent. After careful study the question: "How are such intuitive judgments made, and upon what are they based?" was partly answered for the factors concerned.

It seemed evident, however, that the formulation was not completely successful, for the percentage of such correct predictions remained higher when the intuitive process was allowed to function without conscious interference, than when judgments were attempted on the basis of deliberate use of the criteria which had been verbalized. The conclusion drawn was that the criteria used in the intuitive process had not all been formulated. A discussion of the nature of these particular criteria and their psychodynamic and psychiatric implications will not be undertaken here.

When it was thus found almost by accident that the intuitive process could be studied in that particular situation, a more formal experiment was undertaken. An attempt was made to guess by observing the soldier for a few seconds what each man's occupation had been in civilian life, and then to formulate the data upon which the guesses were based. During this experiment, the intuitions regarding the answers to the routine questions about nervousness were forthcoming as well, with practically no additional effort, and continued to be useful in picking out false negative replies. This means that two fields of intuition were active at the same time. Fortunately, then, the experiment did not interfere with the duty of making the best possible psychiatric evaluation of each man in the time available; and, I was informed later, it added interest and spirit to the routinized experience of each

man's examination. Since the center was not set up for experimental psychology, no control of the results was possible other than by the individual soldiers who went through the experience, except occasionally during a lax period, when some medical officer from a neighboring booth would drop in.

During the examination, the soldiers were under emotional tension related to a uniform goal-striving, namely, their desire to get out of the army as soon as possible, for they believed that the doctors could frustrate this desire. This tension was particularly high when they entered the psychiatrist's booth, because of the particularly imponderable (in their minds) nature of his function. The interview was an emotionally charged "examination" crisis, and not an artificial laboratory situation. This was emphasized in that environment by the fact that the soldiers were unclothed and were enlisted men, while the examiner was fully clothed and an officer. Upon becoming a participant in this situation, each was met by a neutral but unswerving gaze, and by silence and obvious "observation," in a fashion which only a few, if any of them, could have experienced before. Thus for most of them it was an imponderable, anxiety-laden, and new situation.

Since written protocols were not regularly kept, numerical data is available for only a small sampling of the study. On 17 different days, the guesses or lack of them were recorded for "unselected" segments of the line-up, comprising in all, 391 cases. In 84 of these cases, no attempt was made at guessing the occupation, as no clear impression was obtained by inspection. In the remaining 307 cases, guesses were made and recorded. Of these guesses 168, or 55 per cent, were correct, and 139, or 45 per cent, were incorrect. On other days, when intrinsic distractions (as opposed to extraneous stimuli) were operating, as on the day when the separation center was de-activated, only about one-quarter as many correct guesses were made as on the days when intuition was operating, free from relevant emotional interferences: e. g., 14 per cent of correct guesses as compared with 55 per cent. A similar fall in accuracy usually occurred as fatigue set in, if more than 50 guesses in succession were attempted. It was noted that there was a "learning period" of about two weeks when the study began, during which the reliability of the intuitive process gradually increased, after which no further significant increase was demonstrable.

Records on this subject were spread over a period of 47 days, interspersed with other studies. The following is the first half of a statistically-average record presented verbatim. (The special notes, including those referring to "eye sign," will be discussed later.)

Throughout the study, as exemplified, continual attempts were made to verbalize the grounds for the judgments. Whenever a criterion was satisfactorily verbalized, it was tested on several hundred cases. It was found again, as in the case of diagnosing "neurotic behavior" in the preliminary period, that reliance on such formulated criteria yielded less reliable results than intuition. Each time a new criterion was added to the formulation the percentage of hits went up, but never reached the level attained through the use of intuition during "intuitive periods."

The occupations which were most closely studied were "farmers" and "mechanics." These were the two groups which the examiner became most adept at diagnosing. From the series of 307 guesses which were recorded, 58 out of 79 guesses of "farmer," or 74 per cent, were correct, while 14 actual farmers, or 20 per cent of their total, were wrongly assigned; and 17 out of 32 guesses of "mechanic," or 53 per cent, were correct, with 10 actual mechanics, or 37 per cent of their total, wrongly assigned. During the whole run of the experiment, recorded and unrecorded, which included an estimated 2,000 cases, about 50 cases a day for about six weeks, the percentages of correctly recognized farmers and mechanics were high. The study of intuition in connection with these two occupational groups revealed some of the properties of the process. The following formulations gradually emerged, as the basis for each separate judgment was studied.

1. Certain men, when they met the examiner's neutral gaze, shifted their eyes to the left and stared out of the window. The examiner came to call this in his mind the "farmer's eye sign." It was felt, however, that this was not the whole story and that something was being missed; that the intuitive results were based on something more which was being observed and which was not included in this verbalization.

2. This uneasy feeling was confirmed by the fact that when intuition was suspended and this "eye sign" criterion was consciously applied, there were many more errors in determination. A study of these errors led to a refinement and reformulation of

Protocol No. 1
7 November, 1945

	Guess	*Inquiry*	*Notes*
1.	Truck or factory	Truck or factory	(Short, alert, stocky)
2.	Lawyer or small storekeeper	Lawyer	
3.	Farmer	Farmer	(Eye sign present)
4.	Machinist or truck driver	Truck driver	
5.	Farmer	Milkman	(Had suitable complexion but not the eye sign, and I doubted it)
6.	No guess made	Ranch and bull stud man	
7.	No guess made	Auto body, welding, etc.	
8.	Something to do with automobiles	Truck driver	
9.	Truck driver	Truck driver	(Something about the mouth and the way the hands are held; or wrists!)
10.	Farmer	Farmer	(Eye sign)
11.	Mechanic	Mechanic and carpenter	(i. e., "uses hands")
12.	Sales or office	Farm or factory	(Uncertain soft voice; anxiety state, moderate)
13.	Contractor	School teacher	(Handles, i. e., bosses people)
14.	No guess made	Steel mill	
15.	Oil fields	Farm	(Retested for eye sign and was positive)
16.	Raised on farm, worked in factory later	Raised on farm, worked in factory later	(Eye sign modified)
17.	Raised on farm, worked in a big city	Raised on farm, worked in a big city as plumber and mechanic	
18.	Truck driver	Truck driver in army, in civilian life was sexton in cemetery	
19.	I don't know, probably a mechanic	Logger. Truck driver in army	
20.	No guess	Truck driver	
21.	Farmer	Truck driver, small town	(Eye sign too fast for farmer)

the criterion. The true "farmer's eye sign," which was, with few exceptions, peculiar to farmers in the given situation, was found: (a) to occur only in individuals whose faces froze after a few seconds into a stolid expression; and (b) to consist of a special type of gaze-shift to the left, namely, a slow and expressionless one. A rapid shift or an alert expression during the shift was not often seen in members of this occupational group.

This is noted in Case 21, where the erroneous guess of "farmer" was made. The man said that his regular occupation was truck driver, and then it was noted: "Eye sign too fast for farmer." In Case 15, "oil fields" was the guess, but the man said he was a farmer. He was then retested for the farmer's eye sign and it was found to be positive. In the next case, No. 16, the guess was "raised on farm, worked in factory later"; and it was noted that the farmer's eye sign was present in a modified form. The nature of this frequently occurring type of modification was not successfully verbalized.

3. Since the refinement in active observation of the farmer's eye sign still resulted in a lower level of correct hits than did the use of "intuition," other objectively definable factors were sought. The examiner began to take conscious note of the complexion, which had not been done before. This proved unreliable by itself, but if thoughtfully correlated with the eye sign, it helped in a good many cases, and decreased the negative errors, i. e., guessing something else for a farmer, but it did not decrease the positive errors, i. e., guessing "farmer" in the case of other occupations (Case 5). (This result has implications which are not sufficiently important or well-founded with the evidence at hand to warrant discussion.) Since the examiner did not consciously direct his attention to the hands unless he was otherwise baffled, as in Case 9, the extent of their diagnostic influence in this situation is unknown. (Cf. F. Ronchese.[14])

In the case of mechanics, the verbalization which gradually took form was as follows:

Certain men, when they met the examiner's gaze, looked straight into his eyes with an expression of lively curiosity, but without challenge. (Because of "challenge," guessing by eye sign was unsuccessful with officers, and the sign was found to be applicable

only to enlisted men in this particular situation.*) This group generally proved to be mechanics. Where a positive "mechanic's eye sign" was present but the man said he was not a mechanic, he belonged in many cases to an allied trade, such as radio technician. This observation has its own significance, which can be discussed later.

Men of other occupational groups manifested a variety of eye movements which did not seem to be specifically correlated with their occupations.

The diagnosis of "truck driver" was correct in 22 out of 36 recorded cases, or 61 per cent. It was overlooked 11 times in the 307 recorded cases. Attempts to verbalize in connection with this occupation were made (as in Case 9), but they were not successful. The same applies to construction workers, who were frequently picked out successfully. It was noted that these were often of mesomorphic, or combined athletic-pyknic, physique, but no further clues could be verbalized.

Some of the individual guesses were interesting, in that in a few cases, factors other than occupation were intuited. A passive attitude of mind was maintained, oriented toward "occupation," but it happened occasionally that a man gave such a strong impression concerning some other factor, that "occupation" was heavily overshadowed. This frequently happened in the case of New Yorkers, who, silent in their bathrobes, sometimes gave such a strong impression of being, above all, New Yorkers, that other intuitions seemed to be put in umbrage. There was one professional gambler among the 25,000 men, and he was picked out successfully. Salesmen were picked out with considerable regularity, but only after they had talked, and the notes in such cases are revealing; for example: "Deep voice, good animation—a talker." "Good talker—also they say more than the others, instead of just 'yes' or 'no.'" The verbalized criterion in the case of salesmen was: "If he appears to 'love' his voice, he is most likely a salesman. His voice is important to him as an instrument for dealing with reality." This verbalization has interesting psychodynamic implications.

This observation in the case of salesmen, and further consideration of the occurrence of "eye signs" in farmers and mechanics,

*It was a long time after the event before it occurred to me that "challenge" itself constituted an "officer's eye sign" in the given situation.

gradually led to a new and even startling line of thought which was helpful in the attempt to understand the intuitive process. It was found eventually that in effect it was not occupations at all which were being judged, but attitudes toward reality problems. It appeared that the positive farmer's eye sign did not mean "farmer," so much as "one who waits stolidly in the face of an imponderable situation"; while the positive mechanic's eye sign signified not "mechanic," but "one who is curious to know what will happen next and how things will work out." This accounted for the nature of some of the errors, as in guessing "mechanic" in the case of a radio technician. The question of what heritage, which experiences, and what instinctual constellations conditioned these eye signs, is beyond the present scope.

b. *Observations of Numerous Factors About Single Individuals*

One may now turn from intuitions based on the manner in which the individual met a novel and anxiety-laden present reality situation to those which had another basis and dealt with other aspects of the individual's personality. From a collection of cases, a few may be selected which are particularly pertinent to the present discussion. These reveal to what extent the subject can communicate information concerning elements with which the intuiter has no direct contact.

PROTOCOL NO. 2

During tours of night duty in various army hospitals, the writer adopted the custom of passing time with patients on the wards whenever opportunity offered. One evening, upon entering an unfamiliar ward, I found a patient who was unknown to me sitting in the office. Knowing that he should not have been there, he rose with an apology; but I felt that he was an interesting and intelligent individual and suggested that he remain. After this brief exchange of politenesses and a few moments of contemplation I ventured to guess, correctly, the city of his birth and the age at which he had left home. The conversation then proceeded as follows:

Case 1.

Q. I believe your mother "disappointed" you.
A. Oh, no, sir. I love my mother very much.

Q. Where is she now?

A. She's at home. She's not well.

Q. How long has she been ill?

A. Most of her life. I've been taking care of her since I was a young fellow.

Q. What's her trouble?

A. She's always been nervous. A semi-invalid.

Q. Then in that sense she "disappointed" you, don't you think? She had to take emotional support from you rather than give it to you, from your earliest years.

A. Yes, sir, that's correct, all right.

At this point another man who was a stranger to me entered the office, and was invited to sit down. He sat on the floor with his back against the wall and said nothing, but listened with great interest.

Q. (To the first man.) You give me the impression that your father was ineffective from the time you were about nine.

A. He was a drunkard. I believe about the time I was nine or 10 he began to drink more heavily.

Case 2.

After listening to a few more such exchanges, the second man requested to be told something about himself.

Q. Well, I think your father was very strict with you. You had to help him on the farm. You never went fishing or hunting with him. You had to go on your own, with a bunch of rather tough fellows.

A. That's right.

Q. He began to scare you badly when you were about seven years old.

A. Well, my mother died when I was six, if that had anything to do with it.

Q. Were you pretty close to her?

A. I was.

Q. So her death left you more or less at the mercy of your father?

A. I guess it did.

Q. You make your wife angry.

A. I guess I did. We're divorced.

This took me by surprise. After a moment we proceeded:

Q. She was about sixteen and a half when you married her.

A. That's right.

Q. And you were about nineteen and a half when you married her?

A. That's right.

Q. Is it right within six months?

A. (Pause.) They're both right within two months.

Q. Well, fellows, that's as far as I can go.

A. Will you try to guess my age?

Q. I don't think I'm in the groove for guessing ages tonight. I think I'm through.

A. Well, try, sir.

Q. I don't think I'll get this, but I'll try. You were 24 in September.

A. I was 30 in October.

Q. Well, there you are.

About a week later, these men, with their consent, appeared in a clinic designed to demonstrate how the early emotional adventures of the individual leave their marks not only on his later personality, but also on his muscular set, particularly about the face. On that occasion I had an opportunity to learn their names and read their case histories. Some time later one of the men was encountered in civilian life, at which meeting some of the intuitive deductions were reconfirmed. Away from the artificial situations of army life, we are still good friends.

Protocol No. 3

Case 1.

At the request of two psychiatric colleagues in the army, I interviewed in their presence a new arrival on their ward to ascertain whether the delicate intuitive process could function under conditions of controlled observation. I found that after asking the subject a few "irrelevant" questions in order to get an impression of the dynamics of his voice and facial muscles, it was possible to make some conjectures about his early relationships with his parents, his work history, the destiny of his later relationships, and other factors. It was correctly surmised, for example, that he changed jobs frequently because of misunderstandings with his employers, but that he had finally settled down to a job where he

had no one supervising him and had managed to hold this job much longer than any of the others. The important point, however, is not that some of the guesses were correct, but that none of them was incorrect. This incident gave a distinct impression that intuition is sometimes able to function when "put on the spot." *Case* 2.

All three of us were interested in pursuing the matter further, and an opportunity presented itself with the arrival of a new patient from another service for psychiatric consultation. The senior psychiatrist made some of the usual anamnestic inquiries of the 27-year-old bachelor, and then asked for my comments. I ventured to say that in my opinion an important precipitating factor in the case was some shock which the man had received at the age of 18. (His adolescence had not been investigated during the previous questioning.) The man stated that nothing serious had happened to him during that period of his life. In spite of his statement, I intimated that the strength of my intuition persisted.

After further questioning, the senior psychiatrist asked him why he had not yet married, whereupon the patient burst into tears, and said:

"I was supposed to be married once, we were all set for a big wedding, and everybody was at church waiting and she never did show up. That was when I was 18 years old, as the captain said. I didn't want to tell you about it."

When the intuitive mood is strong, it brings with it a feeling of certainty which is difficult to shake off. Just as the man in Case 1, Protocol No. 2, denied that his mother had "disappointed" him, so this man stated that nothing serious had happened to him at the age of 18; yet further questioning in both cases confirmed the intuitive impression.

Protocol No. 4

Many years ago, after some "irrelevant" conversation with a young woman whose existence I had no reason previously to suspect, I made the following observation.

Q. I have the feeling that you are either the fourth or the seventh of 11 children.

A. I am the fourth of 11 children and I have seven brothers.

This confirmation was apparently more incredible to me than my observation was to the individual in question. Other sources

later corroborated her statement. My remark was preceded by a feeling which might be roughly translated as follows: "If I watch this person closely for a few moments something might occur to me."

PROTOCOL NO. 5

During the war, while talking to a young woman who was previously unknown to me, I advanced the hypothesis that she had 28 teeth. This hypothesis was based on a sudden "inspiration" which came to me at that moment without any premeditation. She had not shown her teeth and my observation, including the number 28, was irrelevant to anything we had discussed, except possibly her sadistic tendencies; nor am I in the habit of enumerating people's teeth. She herself did not think that my comment was accurate, but we reviewed the situation and found that it was.

* * *

One is sometimes astonished at the accuracy of intuition as exemplified in the last two protocols and others like them. One would expect, if one guessed "number" in a large series of cases, to be right in a certain proportion; it is quite another thing to be right almost all the time when in a certain frame of mind. I have observed that when the intuition seems strong enough to risk a guess of "number," the guess is nearly always accurate. When the "intuitive mood" is not present, or when intuition is "put on the spot," guesses of numbers are more likely to be erroneous, as in Case 2, Protocol No. 2. In this case, while intuition was functioning spontaneously it was possible to guess correctly the age of a man's unseen wife when he married her; when the mood left, and in the face of a challenge, there was a gross error in guessing the age of the man who stood there in person.

It is true that unless one actively cultivates intuition at times, such incidents occur only a few times a year. One must control one's attitude toward such matters. Intuition might be used in practice to make an estimate of a patient's personality, an estimate which would become clouded as it was overlaid with clinical material; usually one would find in the end, however, when this "clouded" period had been worked through, that the first intuition was reliable. It is probably detrimental, however, either to record one's intuitions in ordinary practice or to communicate them to the patient. Such an externalization tends to limit the

fluidity of images which is desirable for the best therapeutic results. If one makes a restricted and carefully thought-out communication in this regard to two or three patients for experimental purposes, one easily becomes convinced that such comments are not taken lightly and may have a far-reaching effect on the therapeutic situation. On the other hand, with strangers it is necessary first to establish the proper rapport if one wishes to exercise such privileges, otherwise difficulties may no doubt arise.

III. Qualities of the Intuitive Function

A certain attitude of mind, the "intuitive mood," is most favorable to the intuitive function. Little was learned by the writer about the "psychic environment" which was most conducive to such a mood. Extraneous stimuli need not necessarily be excluded. The soldiers at the separation center were examined in a chilly open booth in a noisy atmosphere of hurry and excitement, and the examiner was able to engage in conversation with colleagues between the short periods of concentration which lasted a few seconds each. Such notes on the protocols as: "Room very chilly today," were not followed by any diminution in accuracy. Neither were such notes as: "Up a good part of the night last night," so that the relevance of known (extraneous) internal stimuli is a question which needs further study. On the other hand, the note: "Separation center de-activated today," was followed by a serious loss of intuitive efficiency.

Knowledge of the conditions required to induce the intuitive mood at will would be of great value, but unfortunately no one has yet been able to verbalize these conditions. Such a mood does not resemble the state of withdrawal from reality which advanced students of Yoga, and others, are able to attain, since it is possible during intuitive periods to maintain normal relationships with psychiatrists and other individuals. Perhaps a narrowed and concentrated contact with external reality is necessary. The chief requisite seems to be a state of alertness and receptiveness, requiring, however, more intense concentration and more outwardly directed attention than the passively alert state which is familiar to psychotherapists.

Directed participation of the perceptive ego interfered with intuition. When previously verbalized sensory clues were deliberately sought, the intuitive process was impaired, although it could

be immediately resuscitated. This may have some psychodynamic connection with my experience that clinical intuition works poorly with acquaintances of the "intuiter" and functions best with complete strangers. Deutsch[15] remarks that intuition "will naturally depend on one's sympathy and love for and spiritual affinity with the other person," but I have found that in general a previous acquaintance with the subject is an obstacle to be overcome and not an asset. In special cases, however, where the "clouded period" referred to in the foregoing has been successfully worked through in either a professional or a personal relationship, her statement takes on its true connotations. The problem of resistance is still to be clarified in this connection.* (Cf. Pederson-Krag.[16]) Similar factors probably tend to hamper intuition when the intuiter is "put on the spot." He needs a mechanism for dealing with any anxiety aroused by such a situation, or his intuition is likely to fail, even if the subject himself is a stranger.

With practice, the intuitive mood can be attained more easily. Unless one is in good form, it is difficult to become intuitive at will. Many psychiatrists and psychoanalysts successfully use intuition day after day when they are in active practice, but sometimes after a vacation period find their intuition "rusty." Specialists in other professions who work partly by intuition often find after a holiday that while they may return with fresh mind and viewpoint, their intuition is not so effective as before until they are back in the swing of their usual practice again. A similar example is the regular daily working of intuition at the separation center, and the sporadic occurrence of the intuitive mood when it was not in daily use.

The intuitive function is fatigable; e. g., after about 50 successive guesses at the separation center, the percentage of correct guesses fell off markedly. And despite the subjectively observed inactivity of some of the ego functions, intuition is fatiguing. The type of fatigue may be compared to that felt after any difficult mental strain, such as a hard game of chess.

There was considerable evidence that the accuracy of the impressions improved with accumulated experience in each field, but the possibility of a plateau effect once it reached a certain level

*It was resistance and counter-transference which blinded me at first to the fact that "challenge" was a diagnostic sign for officers in the given situation, and made me feel instead that it was an obstacle. Detailed analysis of this interesting insight is beyond the present scope.

could not be eliminated. The case of the woman with 28 teeth, as well as other cases, raises the question of whether extensive previous experience in a given field is always a prerequisite for intuitive accuracy. It was interesting to note that accuracy was not diminished when judgments were sought in two different fields at the same time (e. g., "degree of neuroticism" and "occupational group"), so that intuitions do not seem to interfere with each other.

Some of these conditions are reminiscent of those mentioned by Rhine for what he calls the "extrasensory perception" function. The conditions outlined here may be summarized as follows:

"The intuitive mood is enhanced by an attitude of alertness and receptiveness without actively directed participation of the perceptive ego. It is attained more easily with practice; it is fatigable, and fatiguing. Intuitions in different fields do not seem to interfere with each other. Intuitions are not all dependent upon extensive past experience in the given field. Extraneous physical stimuli, both external and internal, appear to be irrelevant."

Some self-observation during the intuitive process yielded a kind of introspective formula which can be stated as follows:

"Things are being 'automatically' arranged just below the level of consciousness; 'subconsciously perceived' factors are being sorted out, fall 'automatically' into place, and are integrated into the final impression, which is at length verbalized with some uncertainty." Again one is reminded of the recent cybernetic formulations.

The more prolonged the gaze, the greater the amount of the material which seemed to go through the process, and the greater the number of the impressions which could be verbalized. When the perceptive ego was not directed, the activity of some other function could be "felt," and the fatigue of this latter function could be sensed if an attempt was made to continue too long.

IV. What Is Intuited?

We have evidence that an intuition consists of two processes: a "subconscious perception," and a conscious verbalization. At the separation center, the conscious verbalizations were at first naïvely accepted as formulations of the actual intuitions. It was thought that the intuitive function was actually perceiving "occupational group." Later it became apparent that what the intuitive func-

tion really perceived was "attitude toward an imponderable reality situation." The intuiter's ego then translated these perceptions into a judgment concerning occupational group.

With the men on the ward (Protocol No. 2) a similar process took place. For example, one verbalization consisted of: "She was about sixteen and a half when you married her," and it was thought that this was what was intuited. Actually, in retrospect, the preconscious material was felt to have run about as follows: "This is a man who lacked feminine influence in later childhood and wanted to get away from his father. Such a man as I see before me married young and impulsively, choosing a wife on the basis of certain needs and anxieties of the moment. In this type of case she would be a few years younger than himself and as 'lost' as himself. (Ergo, he married a girl who was ready to get married at the age of sixteen and a half.)"

Later, the corollary to this was formulated on the basis of the intuition, "The situation came to a head in late adolescence," and was verbalized as follows: "He married when he was nineteen and a half years old." (In this case the actual ages have been changed slightly for reasons of discretion.)

We are led to believe that there are at least two types of factors which may be intuited: attitudes toward reality, and instinctual vicissitudes; or more succinctly, ego attitudes and id attitudes. These may be verbalized into guesses, for example, of occupational group and object choice, respectively.

There seemed to be specific clues related to each of these factors. The subject's attitude toward an imponderable reality situation was usually gauged primarily from clues supplied by the eyes and the periocular muscles. I believe that impressions concerning the instincts and their vicissitudes were largely based on "subconscious observation" of the muscles of the lower face, especially of those about the mouth. Head posture, and mannerisms based on tonus of the neck muscles can also be indicators in this respect. One might say that in these situations the eyes were principally instruments of the ego, while the mouth and neck were more expressive of the functions of the id.

V. Discussion

The material presented here has offered an opportunity to discuss, supported by a number of clinical examples, ideas which

have been the subject of speculation for many centuries. In attempting to place these findings in a broader frame of reference one arrives at viewpoints similar to those of Bergson[1] and Reik:[3] Standing on the small island of the intellect, many are trying to understand the sea of life; at most we can understand only the flotsam and jetsam, the flora and fauna which are cast upon the shores. Taking a verbal or mechanical microscope to what we find will help but little to know what lies beyond the horizon or in the depths. For this we must swim or dive, even if the prospect dismays us at first.

To understand intuition, it seems necessary to avoid the belief that in order to know something the individual must be able to put into words what he knows and how he knows it. This belief, still common since Freud, is the result of what appears to be an overdevelopment of reality testing which tempts some who are interested in psychology to think too far away from nature and the world of natural happenings. Dogs know things, and so do bees (von Frisch, Lubbock) and even *stentor* (Jennings). True knowledge is to know how to act rather than to know words. If a certain man looks out of the window in a certain way, we may know how to behave toward that man and what to expect from him. If another man looks at us with lively curiosity, we may know how to behave toward and what to expect from him. To put what we know about these men into words is quite another matter. The relationship of such matters to intragroup reactions (i. e., through what mediums other than words do people provoke and communicate with each other) and to the "undirected function" of the central nervous system (Federn[17]) remains to be clarified.

In attempting to "isolate" operations, particularly operations of the human mind, one is reminded that the concept, "isolation of an operation," is itself a creation of the human mind. Since the mind is in such cases attempting to think about itself with itself as an instrument, a difficulty arises allied to the kind of difficulty which in logic is typified by Epimenides (cf. B. Russell's discussions of "paradoxes"). Just as some statements about propositions must be analyzed differently from other classes of propositions, so mentation about mental phenomena may be considered differently from mentation about other natural phenomena. The future of psychology may lie in the paradoxes rather than in

the body of logic. (Cf. The modern methodological approaches of Einstein, H. Weyl, Korzybski, N. Wiener, et al.)

In a previous publication[18] in which some of the material studied in this paper is mentioned briefly, I summarized the problem along the following lines: In subduing the forces of the id, man often imprisons much that could be useful and beneficial to the individual. Many people could cultivate intuitive faculties without endangering the rest of their personalities and their necessary testing of reality.*

Freud left confident enough to imply that there is no need to be alarmed by proposals of this nature.[19] One might even go so far as to agree that in everyday life people learn more, and more truly, through intuition than they do through verbalized observations and logic. We are tempted to be proud of verbalizations, but it is possible that in many of our most important judgments the small and fragile voice of intuition is a more reliable guide.

Wittels has outlined the weaknesses of intuition[20]: "(1) one has to be endowed with it, (2) it may lead us astray, (3) soon a definite limit is reached beyond which there is no further progress without scientific method. I have never met a man who could equal Freud in intuition, i. e., of inexplicable immediate psychological insight. But he also had scientific self-control which—with a few exceptions—did not trust his unproved visions." To which an optimistic man might reply: (1) that he believes everyone is endowed with intuition and needs only to get at it; (2) that it will not lead us astray if we can free it from destructive involvement with neurotic constellations and anxieties; and (3)[6] that there is a time for scientific method and a time for intuition—the one brings with it more certainty, the other offers more possibilities; the two together are the only basis for creative thinking.

Conclusions

1. An intuitive function exists in the human mind.

2. Under proper conditions, this function can be studied empirically.

*On the contrary, my initial failure to recognize "challenge" as a diagnostic sign for officers was evidence of involvement with my own questionable anxieties of the moment; the subsequent recognition of the intuitive value of this phenomenon, represented freedom and insight and improved reality testing.

3. The intuitive function is part of a series of perceptive processes which work above and below the level of consciousness in an apparently integrated fashion, with shifting emphasis according to special conditions.

4. The clinical intuitions studied were found in most cases to be based at least partly on preconscious, sensory observation of the subject.

5. What is intuited is different from what the "intuiter" verbalizes as his intuition.

6. The dynamics of the eyes and the periocular muscles express reality attitudes. The dynamics of the lower facial and neck muscles are more indicative of instinctual vicissitudes.

7. Intuitive faculties may be more important than is often admitted in influencing judgments about reality in everyday life.

8. The intuitive function is useful and worth cultivating.

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REFERENCES

1. Bergson, H.: Creative Evolution. Modern Library. New York. 1944.
2. Eisenbud, J.: Telepathy and problems of psychoanalysis. Psychoan. Quart., XV: 32-87, 1946.
3. Reik, T.: Listening with the Third Ear. Farrar, Straus & Co. New York. 1948.
4. Kempf, E. J.: The Autonomic Functions and the Personality. P. 23. Nervous & Mental Disease Pub. Co. New York. 1921.
5. Jung, C. G.: Psychological Types. Pp. 567-569. Harcourt, Brace & Co. New York. 1946.
6. Poincaré, H.: Mathematical Creation. J. R. Newman, editor. Pp. 54-57. Scientific American, CLXXIX. August 1948.
7. Kris, E.: On inspiration. Int. J. Psychoan., XX:377-390, 1939.
8. Hutchinson, E. D.: Varieties of insight in humans. Psychiatry, II:323-332, 1939.
9. Wild, K. W.: Intuition. Cambridge University Press. London. 1938.
10. Rhine, J. B.: New Frontiers of the Mind. Farrar & Rinehart. New York. 1937.
11. Aristotle, as cited by Cohen, M. R., and Nagel, E., in: An Introduction to Logic and Scientific Method. Harcourt, Brace & Co. New York. 1934.
12. Wiener, N.: Cybernetics, or Control and Communication in Animal and Machine. John Wiley & Sons. New York. 1948.
13. See "Perception, subconscious," in Hinsie, L. E., and Shatzky, J.: Psychiatric Dictionary. Oxford University Press. New York. 1945.
14. Ronchese, F.: Calluses, cicatrices and other stigmata as an aid to personal identification. J. A. M. A., 128:925-931, 1945.

15. Deutsch, H.: Psychology of Women. Vol. 1, p. 136. Grune & Stratton. New York. 1944.

16. Pederson-Krag, G.: Telepathy and repression. Psychoan. Quart., XVI:61-68, 1947.

17. Federn, P.: The undirected function in the central nervous system. Int. J. Psychoan., XIX:2, 1-26, 1938.

18. Berne, E.: The Mind in Action. Pp. 279-286. Simon and Schuster. New York. 1947.

19. Freud, S.: New Introductory Lectures on Psychoanalysis. P. 80. W. W. Norton & Co. New York. 1933.

20. Wittels, F.: Review of Stekel's "Interpretation of Dreams." Psychoan. Quart., XIV:542, 1945.

SOMATIC PROCEDURES FOR THE RELIEF OF ANXIETY

A Review

BY HERBERT FREED, M. D., ERNEST SPIEGEL, M. D., HENRY T. WYCIS, M. D.

There is a close biological relationship between anxiety and tension. In a number of definitions, e. g., those given by Bleuler,[1] Masserman,[2] Noyes,[3] it is recognized that anxiety is a state of tension. To quote the definition by Noyes in the recent edition of his text: "Anxiety is a condition of heightened tension accompanied by a vague, but often most disquieting feeling of harm or disaster."

If we assume with Cameron[4] that tension is a state of psychobiological preparedness, then it is always with us, while anxiety is not. However, as tension increases in an organism, an affective element seems to emerge into consciousness which we experience first as anxiety and ultimately as panic. The anxiety which was apparently to supply its adaptive purpose to prepare us for the fight-flight reaction may become our Frankenstein instead of our savior.

Our concept of the neurophysiologic basis for these reactions rests on the experiments of Cannon[5] who advanced the theory that emotions were caused by thalamic-cortical interaction. Hormonal, visceral or motor accompaniments might be present but are not necessary.

Since we consider the expression of emotion, specifically anxiety, as being mediated through the same sympathetic, hormonal and motor mechanisms that mediate tension, we shall review the various therapies used to control anxiety as well as tension.

D. E. Cameron[7, 8] in a series of reports has described his experiences with the use of *adrenalin* administered intravenously frequently over a period of many months, for the treatment of three selected groups of anxiety states. He states that psychotherapeutic procedures are almost exclusively directed toward dealing with the primary causes of anxiety. These are ineffective, he holds, because the anxiety state has become autonomous; so he attempts to break up this autonomous reaction by decreasing the reactivity of the individual, that is by desensitization to adrenalin. These three groups can be briefly described as: (a) cases in which a severe catastrophic experience results in an anxiety state which shows no

tendency to clear up with the passage of time: (b) cases in which the anxiety symptoms appear as the consequences of long-continued exposure in difficult and trying situations, e. g., battle experiences in which the anxiety symptoms do not subside on removal from danger; (c) cases in which the individual has had to work at high tension for prolonged periods but in which there is no apparent conflict present. This group of cases would include housewives or civilians working under strain in industries.

Cameron pointed out that increased reactivity to adrenalin has been shown by Maranon, Bashova, Richter and Thorley to exist in patients suffering from anxiety states. Goodman and Gilman reported that tolerance to adrenalin, at least to its anti-spasmodic effects, may be established in asthmatics. In man, the prolonged intravenous administration of adrenalin also resulted in a drop in blood pressure below the initial level.

Cameron gives doses of 0.1 mg. of adrenalin sulf. in 1 cc. of distilled water intravenously at least three times a week. These doses are increased in frequency or quantity of adrenalin up to 0.9 mg. dependent on the patient's subjective and objective responses to the treatment. Over 40 patients have been observed for prolonged periods and, apparently, varying degrees of improvement have been obtained.

Cameron concludes from his work that "adrenalin desensitization" appears to be most successful where the anxiety state is autonomous and where anxiety has not become organized into fixed obsessive symptoms. He finds that desensitization by adrenalin is accomplished by reduced reactivity of the tissue structures to adrenalin, e. g., the cardio-respiratory systems, and an increased reactivity of the parasympathetic structures, e. g., the vagus nerve. It seems of great interest that a physiologic method has been used to treat these cases of autonomous anxiety, and that this appears to have been successful in a certain number of cases; however, it must be pointed out that this does not in any way imply that the initial disturbance was not psychogenic in etiology. Except for a very few instances, occurring primarily in the investigative field where anxiety can be produced by physiologic agents, one may say that anxiety is essentially an accompaniment of the reaction of the individual to his environment.

T. A. C. Rennie[9, 10] is only one of a number of therapists who have recommended the use of *insulin* in subcoma doses for the

treatment of anxiety in psychotic states and for some neurotic patients. He states: "Insulin in subcoma doses produces an effective method of sedation. Its specific action seems to be in the alleviation of anxiety. With the relief of anxiety the psychotic manifestations sometimes rapidly disappear."

It would seem that this method is safe and far superior to that achieved by the usual methods of sedation. The dosage is dependent on the patient's sensitivity to insulin. The number of treatments administered is comparable to those in standard shock therapy, i. e., apparently up to 50 treatments. Rennie advocates that the treatment be combined with organized psychotherapy.

Besides the use of these two hormones, insulin and adrenalin, other substances found in the tissues such as *histamine*[11] and a mixture of *carbon dioxide and oxygen*[12] have been tried to produce effective changes. Reports to date on the use of these lack confirmation by other than the original workers, or there is insufficient follow-up observation.

Sargent and Slater,[13] in their book on physical methods of treatment in psychiatry, emphasize the importance of *alcohol* as the socially-approved drug which has psychiatric value. Various religious groups have used it for obtaining emotional release. Psychiatrists have been fortunate in finding a drug family, the *barbiturates,* which will consistently give relief from anxiety and lessening of tension. The drug can be given orally or parenterally. The dramatic effect when given intravenously has been emphasized in the techniques known as narcoanalysis and narcosynthesis. Dosages, as well as techniques, have been described in many papers.[14, 15]

The latest report on the action of *sodium amytal,* based on experimental studies, concludes that the depressive effect is predominately cortical and begins in the frontal lobes. It is only when the phase of sleep is reached that the "central regions" of the brain are depressed. "The primary psychic effect of sodium amytal seems to be a weakening of the emotional drive as demonstrated especially clearly in anxious depressions. The anxiety first subsides and the mood then becomes slightly euphoric. Pentothal sodium on the contrary does not adequately relieve the anxiety."[16]

A word must be said regarding continuous narcosis in which the barbiturates are often administered by rectum in combination with other somnifacients. It has been noted that it is chiefly of value

when patients are too anxious and unco-operative for more radical forms of treatment. When the anxiety has abated insulin sub-shock therapy may be started.

The problem of the acute psychiatric emergency in peace time, e. g., the girl who has suffered marked psychic trauma because of an attempted rape, has been highlighted by our war-time experiences. It would seem to be desirable therapy both for the immediate and the prophylactic effect to put the patient to sleep immediately and then attempt later to obtain abreaction and to prevent the development of many associations colored by anxiety.

There is a significant unanimity of opinion in opposition to the use of *electric shock* therapy in the patient with an anxious temperament.[17] Patients with anxiety hysteria seem to be the least amenable to electric shock therapy. Most of them remain unimproved. Some have felt temporarily relaxed and less tense. The conditions of others have been aggravated by fear of the treatment or by side-effects such as memory impairment and the feeling of unreality, which is resented much more by neurotics than by psychotics. Kalinowsky and Hoch believe that fewer treatments at longer intervals are preferable when the treatment is given only to relieve tension, or to make the patient more accessible to psychotherapy.

As to *psychosurgery*, a total of 5,000 cases of lobotomy was reported at the International Congress of Psychosurgery at Lisbon, Portugal in August 1948.[18] Results could not be tabulated statistically because of the lack of a common terminology and nomenclature. Lobotomy was reserved as a generic term for all psychosurgical operations. It was suggested that the terminology of the various subdivisions should be descriptive of the location and the structure sectioned and that the principal headings include: (1) cortical ablations; (2) cortical undercutting; (3) leucotomy; (4) thalamotomy; (5) lobectomy. However, it should be emphasized that thalamotomy is different from the operations on the cortex or the white matter of the frontal lobe, in that it spares the frontal association systems which are affected in all other procedures.

While the indications for these operations would seem to be increasing, the universal observation is that tension is particularly diminished.

There is no large group of cases of leucotomy reported in which the post-operative diminution of anxiety is reviewed statistically.

Possibly the closest approach is the group reported by the Board of Control (England and Wales).[19] In Table IX of this report, one notes that the symptom of agitation is analyzed for post-operative changes. If one assumes that this is usually the motor manifestation of marked anxiety, it may be noted that in every case there was post-operative improvement, with complete disappearance in 71 per cent of the cases. If one has symptoms that are not accompanied by the elements of self-concern, anxiety or tension, it would not seem advisable to perform an operation that has a number of undesirable complications. In the classical operation popularized by Freeman and Watts, the outstanding unwanted personality manifestation is described in these words of a patient's relative: "He has lost his soul." The patient no longer feels deeply about anything.

It may be asked if we are justified in attempting to remove anxiety in a severely neurotic patient with a procedure in which, as it has been said, the patient loses his soul.

The writers are in complete agreement with the following quotation from Report No. 6 of the Group for the Advancement of Psychiatry, entitled, "Research in Pre-frontal Lobotomy." "When we ask ourselves, why are we so interested in lobotomy and allied procedures and why is there so much emotional conflict about it, we must realize that it is more than an experimental procedure to determine the function of the deep white bands of fibers which course to and from the frontal lobes. It is an operation performed in the name of therapy, steadily advised with greater frequency not only for intractable psychoses but also for a wide variety of psychological disturbances. It is now being used for neuroses and in some clinics even for the treatment of war neuroses. It is often done hastily, without adequate previous study, without the previous use of rational therapeutic measures and it is performed before an opportunity is afforded for possibility of spontaneous remissions. It represents a mechanistic attitude toward psychiatry which is a throwback to our pre-psychodynamic days which in itself would not be of great concern if it were successful and did not harm the patient. It is a man-made self-destructive procedure that specifically destroys several human functions which have been slowly evolved and that especially separate us from other animals. If the operation is of importance as a therapeutic procedure in certain selected cases, it becomes all the more important for us

to establish definite clinical indications and controls so that its usefulness will not be diluted by utilization in situations where it can do little good and much harm."

The occurrence of an intellectual deficit, of undesirable personality changes and the possible onset of a convulsive state directly attributable to the trauma to the frontal cortex or to its connection with other cortical areas made Spiegel, Wycis and Freed seek for an improved procedure. This, the authors have named thalamotomy and described in detail in previous papers.[20, 21]

Let us consider the neurophysiology underlying the procedures of lobotomy and thalamotomy. Afferent sensory stimuli entering the thalamus (ventral nuclei) are transmitted to the sensory cortex, which is the basis of perception. Part of the afferent stimuli are relayed to other thalamic nuclei such as the dorso-medial nucleus. This nucleus, on the one hand, is able to transmit impulses to the prefrontal cortex (Brodmann's areas 9 to 12); on the other hand it may be influenced by efferent fibres from these areas. In this way a reverberating circuit is established which seems to be one of the main mechanisms responsible for emotional reactions.* This mechanism may be interrupted by prefrontal lobotomy, which, however, also interrupts the association systems connecting the frontal lobe with other cortical areas. It may also be interrupted by medial thalamotomy which tries to affect this system in as isolated a manner as possible.

In the series of thalamotomies observed by Spiegel, Wycis and Freed, there was a group of 12 cases in which anxiety was a prominent symptom. After thalamotomy, there was an immediate diminution of anxiety in every patient in this group. However, five of these patients relapsed within a matter of weeks post-operatively. Three were re-operated upon with improvement in each case which has continued to date. In one patient who was mark-

*Masserman (Ref. 2) believes the hypothalamus plays a role only as effector apparatus innervating the vegetative reactions to emotions. There are, however, some experiences indicating that hypothalamic stimuli may play a role in the genesis of the subjective experience of emotion, such as Foerster's experience (Ref. 22), during the operations for hypothalamic tumors, and Grinker's (Ref. 23) work stimulating the hypothalamus from the pharynx. Experiments by Spiegel and Miller (Ref. 24) have shown that lesions in the subthalamus, leaving the hypothalamus intact, may produce a certain degree of depression of psychomotor activity, somnolence and catalepsy. These experiments suggest that hypothalamic impulses directed upward toward the thalamus and the cortex may stimulate the activity of these centers and thus increase the activity of the diencephalic-cortical reverberating circuits.

edly catatonic and completely inactive there developed a transitory state in which the patient within a week after operation became rather aggressive, sexually and otherwise. Three weeks after the operation he was quiet, said he felt relieved of tension and said that the auditory hallucinations had stopped completely. A month later he was paroled. This transitional state of aggression may have more than passing psychopathological significance as will be brought out in the discussion. In one case the lessening of tension tended even to approach a state suggesting apathy. Thus far, none of the complications or undesirable by-effects of leucotomy such as facetiousness, childishness and lack of foresight has been observed in the writers' cases of thalamotomy. In none of our cases did epileptiform convulsions develop.

Discussion

The pre-eminence of anxiety as an affect that must be treated is accepted by psychiatrists today. It can be the most disturbing manifestation in various forms of mental illness. Psychotherapy has always been used initially for it, frequently in the form of simple reassurance combined with sedation. With the development of shock therapy more drastic procedures culminating in psychosurgery are now being used. However, it should be emphasized that recourse to such measures should be taken only if psychotherapy has failed.

Is there a psychopathological explanation for the disappearance, not only of tension, but also of delusions, seen in schizophrenics after thalamotomy? The hypothesis which Rennie has tentatively suggested for the relief of anxiety with insulin subshock therapy is worthy of consideration. He agrees with Bleuler[25] that affectivity dominates all other functions of the psyche and concludes that in disturbances in any sphere of the personality it is the disturbed affective mechanism that first creates manifest symptoms. The presence of a disturbing affect like anxiety with certain associations would produce delusions. If we lessen tension, thus diminishing anxiety, the pathological associations will fall away and so-called normal thinking will result. It has been recognized by Rosen[26] and many other observers that the acutely catatonic, completely withdrawn patient is an individual frozen with fear. This was well illustrated by the aforementioned catatonic, withdrawn patient who became sexually and otherwise aggressive, as well as

more responsive to the environment, after thalamotomy. Apparently thalamotomy helped this patient by diminishing the degree of anxiety present and thus allowed a free expression of repressed aggression and hostility.

Summary and Conclusions

1. There is a unanimity of opinion that psychotherapy is the treatment of first choice for anxiety associated with the psychoneuroses. It is only when this approach has failed or cannot be utilized that any of the somatic procedures may be indicated.

2. Insulin subshock therapy would seem to be definitely of benefit in allaying anxiety both in the neuroses and the psychoses.

3. The work of D. E. Cameron on autonomous anxiety and its treatment by adrenalin-desensitization is valuable from a theoretical aspect and promising from the therapeutic angle.

4. The use of the barbiturates to lessen tension and diminish anxiety has been amply reviewed and confirmed by many observers.

5. In contradistinction: Electric shock therapy seems to have limited value in anxiety states, and, indeed, in some cases it is claimed that anxiety has been enhanced because of a residual fear of treatment.

6. The now classical procedure of prefrontal lobotomy has unquestioned value in relieving anxiety-tension states but produces undesirable by-effects such as convulsions, diminution of intelligence, and "blunting of the personality" characterized by childishness, lack of foresight, impaired judgment and shallowness of feeling.

7. The latest procedure is thalamotomy which is aimed to obtain the beneficial results of lobotomy, i. e., relief of tension and anxiety without the aforementioned undesirable complications.

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REFERENCES

1. Bleuler, E.: Naturgeschichte der Seele, zweite Auflage. S. 185—. Julius Springer. Berlin. 1932.

2. Masserman, J. H.: Principles of Dynamic Psychiatry. P. 322. W. B. Saunders. Philadelphia. 1946.

3. Noyes, A. P.: Modern Clinical Psychiatry. 3rd edition. W. B. Saunders. Philadelphia. 1948.

4. Cameron, D. E.: Objective and Experimental Psychiatry. 2nd edition. P. 390. Macmillan Co. New York. 1941.

5. Cannon, W. B.: James Lange theory of emotion. Am. J. Psychol., 39:106-124, 1927.

6. ——: Psychological Review, 39:281-295, 1931.

7. Cameron, D. E.: Adrenalin administration in persistent anxiety states. Am. J. M. Sci., 210:281, 1945.

8. ——: Further studies on the use of adrenalin in persistent anxiety. PSYCHIAT. QUART., 20:425, 1946.

9. Rennie, T. A. C.: Use of insulin as sedation therapy; control of basic anxiety in psychoses. Arch. Neurol. and Psychiat., 50:697-705, December 1943.

10. Brickner, R.: Ambulatory insulin treatment. Section on Neuroiogy and Psychiatry, New York Academy of Medicine, May 16, 1945.

11. Niver, E. O.: Use of histamine in preparing patients for psychotherapy. PSYCHIAT. QUART., 22:4, 729-736, October 1948.

12. Meduna, L. J.: Pharmaco-dynamic treatment of psychoneuroses (preliminary report). Dis. Nerv. Sys., 8:37-40, February 1947.

13. Sargent, W., and Slater, E.: An Introduction to Somatic Methods of Treatment in Psychiatry. P. 171. Williams & Wilkins. Baltimore. 1944.

14. Freed, H.: Neurosynthesis for the civilian neurosis. PSYCHIAT. QUART., 20:39, 1946.

15. Horsley, J. S.: Narco-Analysis. P. 134. Oxford Med. Publ. London. 1943.

16. Delay, J., and Mallet, J.: Sodium amytal: its use in neuropsychiatry and psychosomatic medicine. L'Encéphale, 37:5, 1948.

17. Kalinowsky, L. B., and Hoch, P. H.: Shock Treatments and Other Somatic Procedures in Psychiatry. P. 294. Grune and Stratton. New York. 1946.

18. Digest of Neurology and Psychiatry, Series XVI, September 1948. Institute of Living, Hartford, Conn.

19. Board of Control (England and Wales): Prefrontal Leucotomy in 1000 Cases. 31 pages. His Majesty's Stationery Office. London. 1947.

20. Spiegel, E. A.; Wycis, H. T.; and Freed, H.: Thalamotomy in mental disorders. Joint meeting Philadelphia and New York Neurological Societies, April 23, 1948, and First International Congress for Psychosurgery. In print.

21. ——: Stereoencephalotomy. Proc. Soc. Exp. Biol. and Med., 69:175, 1948.

22. Foerster, O., and Gagel, O.: Ein Fall von Ependymcyste des III. Ventrikels. Ein Beitrag zur Frage des Beziehungen psychischer Störungen zum Hirnstamm. Zeitschr. f. d. ges Neurol. u. Psychiat., 149:312-344, 1933.

23. Grinker, R. R., and Serota, H.: Studies on corticohypothalamic relations. J. Neurophysiol., 1:513-589, 1938.

24. Miller, H. R., and Spiegel, E. A.: Sleep induced by subthalamic lesions with the hypothalamus intact. Proc. Soc. Exp. Biol. and Med., 43:300-302, 1940.

25. Bleuler, E.: Affectivity, suggestibility and paranoia. Translated by C. Ricksher. State Hosp. Bull., 4:481, 601, 1912.

26. Rosen, J. N.: Method of resolving acute catatonic excitement. PSYCHIAT. QUART., 20:183-198, April 1946.

QUEST FOR "PSYCHICS" AND "PSYCHICAL" PHENOMENA IN PSYCHIATRIC STUDIES OF PERSONALITY

BY JAN EHRENWALD, M. D.

It is a common experience in neuropsychiatric practice that the beginner, working in a neurological out-patients' department, may overlook a psychoneurosis for the simple reason that in the given clinical setting he fails to associate the symptoms seen in the patient with the possibility of functional disease. For the same reasons, serious neurological conditions, e. g., a brain tumor, may pass undetected in a mental hygiene clinic. Obviously, what is being distinguished as the neurological *versus* the psychiatric approach requires a different frame of reference, based on a different set of diagnostic expectations and guiding principles.

The dangers of this one-sided orientation—sometimes it may amount to hemianoptic blindness, as it were—are too well known to require further elaboration. They have led to increased emphasis on a vastly extended frame of reference for trained clinical observation in the modern psychosomatic approach, including systematic inquiry into all conceivable personality traits. Yet, however comprehensive this new approach may be, there is a group of phenomena, belonging to the borderland between normality and mental illness, which has thus far eluded systematic investigation because the current system of psychiatric thought has failed to make any provision for the very possibility of their existence. They are what are commonly described as *psychical phenomena,* occurring in persons colloquially referred to as *psychics.* Whatever be the nature of these phenomena, every worker in psychical research is familiar with persons putting forward claims to their possession. This is in striking contrast to the fact that so far psychiatry has taken little or no cognizance of their existence—as if persons of this type were never encountered in daily practice.

It is true that the phenomena themselves are still highly controversial and that their elusive character has discouraged many responsible workers from their methodical investigation. But the claims presented by the persons concerned remain; the cultural, anthropological and characterological setting from which they emerge is a reality; and the personality structure of the many self-styled "psychics," "mediums" or "sensitives" undoubtedly

poses a fascinating problem to the psychiatrist—whatever the actual nature of the experiences reported may be.

Seen from the angle of the psychiatrist, systematic inquiry into the problem of so-called psychical phenomena must therefore proceed in two steps. First, the psychiatrist must inquire into the personality traits of the person concerned. He must make detailed studies of his personal and family history, of his psychosomatic characteristics, etc., much in the same way as in any other case that comes under his purview. Second, he may seek to ascertain the genuineness of the claims put forward by such people. He can do so by means of systematic observation, by trying to obtain corroborative evidence from their friends and relatives and by enlisting the aid of workers in psychical research, trained in laboratory extrasensory perception (ESP) experiments. It is obvious that, failing systematic investigation of this kind, both the alleged psychical phenomena and the persons exhibiting them are bound to fall between two stools—much in the same way as in the case of a patient suffering from anxiety hysteria before the advent of Freud, or from a basophilic adenoma of the pituitary before the advent of Cushing. It has been intimated here that if the patient has the misfortune to attend the wrong out-patients' department, the same thing may happen to him even in our day. And as long as contemporary psychopathology fails to make any provisions for his diagnostic appreciation, it is *bound* to happen to the type of personality discussed here.

What, then, are the tentative features of the so-called psychic personality type? The Oxford English dictionary defines the psychic as a person susceptible to psychic or spiritual influences. In the present connection it is better to be both more specific and less dogmatic and to describe psychics as persons who *claim* in good faith to be prone to recurrent telepathic, precognitive or clairvoyant experiences. (So-called physical phenomena, which are even more controversial, might better be left out of our immediate frame of reference.) But listing the claims to be examined and the characterological setting within which the purported phenomena occur is not enough. To come to closer grips with the problem we must begin with a preliminary classification of the available evidence such as can be derived from observations of our own in everyday life, in psychiatric practice and from well-authenticated cases published in the literature. From this ma-

terial two chief aspects of the psychic personality make-up have emerged.

First, there is a group of persons who seem to be susceptible to telepathic and related experiences on the receiving end. They are, or they claim to be, good "sensitives" or percipients. Second, there is a group of people who are, or who claim to be, particularly prone to act as successful agents in telepathic and related occurrences, or whose presence or active participation seems to favor or promote such occurrences.

Persons purporting to be good "sensitives" or percipients usually claim to possess peculiar intuitive gifts, to have unfailing "hunches," a particular flair for judging people. They may state that they are able to "get" their personalities in a "flash," that they are sensitive to their moods, or to the "atmosphere" in their social environment. More often than not, this is associated with a keen sense of observation, with an increased sensitiveness to sounds, smells or colors. Some may claim to possess special physiognomic gifts or graphologic faculties. Others may show an increased suggestibility, a tendency to mental dissociation, amounting at times to pronounced hysteric features. Or they may exhibit a tendency to various motor automatisms, without additional hysteric traits. Other persons, again, may recount a variety of psychic incidents such as premonitions, telepathic dreams, veridical hallucinations, etc. Finally, a group of persons, more familiar to the psychiatrist, may relate patently morbid experiences. They may complain of being influenced by other people at a distance, by electric currents, by the radio or other physical forces acting upon them. In short, they may show all the characteristics of a paranoid trend with ideas of reference or persecution, or display the symptoms of a full-fledged schizophrenia, masquerading under the guise of a so-called spiritualistic psychosis.

Frequently persons susceptible to telepathic experiences on the receiving end will also claim to be good telepathic agents. But there undoubtedly are persons who show a predisposition toward functioning as telepathic agents only and who (one should say consequently) are apt to be successful experimenters in ESP tests.

The personality traits seen in this second group are harder to describe than those characteristic of the former. They seem to be people inclined to act on the spur of the moment, always sure of

what they want to do and able to do so without doubts and scruples. They are ready to go "all out" for a cause and to impose their views upon others. They are outgoing, aggressive, good mixers and apt to act as leaders in their group. They may consider themselves lucky in love, business, games of fortune. They may be good hypnotists, lay or professional. Many successful psychotherapists—whether of the extrovert or of the introvert type—seem to belong to the same group.

In a paper* dealing with the part played by telepathy in the psychotherapeutic approach, I point out, however, that emotionally-charged therapeutic wishes and expectations, in order to assume telepathic activity must not be brought to bear on the respective percipient in a frontal attack, as it were. They "get through" to the patient only when they have first been curbed by an attitude of self-restraint and self-denial, springing from the realization that complete passivity and non-activity on the part of the therapist may yield better results than action. I have described this feature of telepathy as the *principle of frustrated volition.*

Other persons may show a tendency to primitive, magical thinking, manifesting itself in compulsive or obsessive features. Alternatively, here, again, symptoms suggestive of a more serious mental disorder may be present. Claims may be produced to the effect that the subject is able to influence people's thoughts and actions at a distance, to wield supernatural powers. In short, we may move from the twilight zone of true or purported psychic phenomena into the sphere of mental disorder in a stricter sense, manifesting itself in ideas of grandeur such as can be found in a certain group of paranoiacs, or in Kraepelin's paraphrenics.

The accompanying *Psi-Questionnaire*** is intended to suggest some of the guiding questions which might be used to obtain the information necessary to arrive at a clearer picture of the personality type discussed here. The questions are arranged in two columns, in such a way that those listed on the right-hand side aim at eliciting information regarding the mental make-up of a purported percipient, those on the left-hand at traits suggestive of a successful agent. It will be noted that in both columns the questions are put in such an order that they first inquire into character

*In preparation.

***Psi* is an abbreviation for *psychical phenomena* whatever their nature. It was suggested by R. H. Thouless.

traits generally considered as "normal," although they are suggestive of a characterological disposition *sui generis*. On proceeding from the top to the bottom, we arrive at questions which, if answered in the affirmative, would be characteristic of what we tentatively described as the psychic type of personality—irrespective as to whether we are able to confirm or to refute their claims.

Psi-Questionnaire

Percipient	*Agent*
Are you in the habit of judging people by carefully watching what they say, what they do, how they behave?	Do you plan every step, every move you make, in advance?
or	or
(1)	(1)
Are you guided by your "hunches"? Do you sense (in an intuitive manner) whether you like or dislike people? Are you in the habit of sizing up people in a "flash"?	Are you in the habit of acting on the spur of the moment (in an impulsive manner)? Are you sure as to what you want to do, and do it without vacillating?
(2)	(2)
Are you very sensitive to colors, odors, sounds—or to memories you associate with them? Are you very sensitive to the mood, the atmosphere that exists in connection with the place you are in?	Do you go "all out" for a cause once you have made up your mind about it? Are people ready to accept your leadership?
(3)	(3)
Are you easily convinced by the views, arguments, etc., of other people? (Are you easily suggestible?)	Can you easily talk people into accepting your guidance, into following your example? Are you good at getting people to accept your suggestions?
(4)	(4)
Are you very sensitive to what people think of you? Do you readily follow the lead of your superiors, teachers, educators? Do you easily "guess" their wishes or expectations?	Do you consider yourself lucky in love, business affairs, games of fortune? Do you find you can "sell" yourself easily in your professional or social contacts?
(5)	(5)
Describe your experiences, if any, which you think prove that your "hunches," intuitions, or presentiments have been borne out by the facts.	Do you have experiences suggesting that you are apt to influence people with your wishes, fears, or expectations without uttering them expressly?

(6)	(6)
Have you ever (often, intermittently, or at certain periods of your life) had any unusual experiences such as dreams that came true? Can you remember instances when you became aware of another person's thoughts or feelings (in a telepathic way)? Can you recall occasions when you met a person at the moment you happened to think of him? When he wrote you or phoned you under like circumstances?*	Have you at any time in your life had experiences to bear out the observations under Question 5? Can you remember instances when another person seemed to "get" your thoughts in a telepathic way? When he wrote or phoned you at a time when you happened to be thinking of him? When he made a move you wanted, expected, or feared he would make?*
(7)	(7)
Have you ever had premonitions or forebodings of distant or future events?*	Do you think your wishes or desires have ever been a factor in bringing about real events—present or future?*
(8)	(8)
Have you ever had any unusual experiences in waking life such as hearing voices or seeing apparitions?	Do you have any compulsive habits such as putting things in a special order, touching objects? Are you subject to muscular spasms or twitches?
(9)	(9)
Have you ever had unusual bodily sensations (paresthesias)? Have you ever had the feeling of losing your identity or your grip on the outer world?	Have you ever noticed that you have the power to make people do or think what you want them to? Do you think you can influence them at a distance with your own thoughts and actions?
(10)	(10)
Have you ever felt that people try to influence you at a distance, e. g., your thoughts, feelings, or bodily functions? Can people read your mind? Does the radio have any special influence over you, etc.?	Do you think you can control things that happen at a distance with your will power? With radio waves, electricity, etc.?

*Supply particulars and documentary evidence (letters, diaries, etc., if available) to confirm your observations. Give details of your relationship with the persons involved. Name witnesses and furnish statements signed by them if possible.

The footnote to the table suggests some of the additional questions that may be asked in order to amplify the data.

Questions listed toward the bottom of both columns proceed along the lines of the orthodox psychiatric interview. It need not be emphasized that the investigator must refrain from putting questions referring to an overt delusional trend in other than frankly psychotic cases. But he will also have to realize that there is no strict demarcation line between what our current ap-

proach likes to pigeonhole as "normal" in contrast to "supernormal" or "abnormal" traits. The present writer has pointed out elsewhere* that at bottom our mental functioning in health, disease and in states conducive to psychic phenomena is nothing but a variation of the perennial theme of human personality. The investigator will therefore be well advised to disregard emotional bias both *for* and *against* the phenomena under review and proceed with equanimity in his inquiry, wherever it may lead: to the timeless meditations and ecstasies of the saints and mystics; to the creative intuitions of the genius; to the personality deviations of marked psychoneurotics or hysterics; or to the grossly morbid manifestations found in patients committed to the chronic wards of the mental hospital.

It was intimated in the foregoing that the questions outlined in the questionnaire should be part of a comprehensive personality study or of a general psychiatric interview. They are meaningless when considered by themselves and they must be amplified by such studies of character and personality, including those made by modern projective techniques, etc., as are available at present. These data, wherever they are suggestive of a "psychic" type of personality, will have to be supplemented—and if possible verified—by experimental investigations of the ESP type carried out by the worker in parapsychology.

Another point should be mentioned in passing only. All the questions put in the questionnaire are addressed directly to the subject. But they may serve the same purpose when they are borne in mind by the investigator as guiding principles only, so as to call his attention to material which may emerge during the interview but which may otherwise remain unheeded. They may also be used when he has the opportunity of extending his inquiry to the subject's friends and relatives who may then be able to support—or to refute—his claims and thus help toward arriving at a more rounded characterological picture.

It would be futile to deny that a number of objections can be raised to the questions proposed. It may be argued that they admittedly start from the presupposition that a psychic type of personality, as defined in the foregoing, does in reality exist, and that they therefore beg the issue. But it will also have to be admitted that this difficulty is to be found in every branch of psychology—

*Telepathy and Medical Psychology. W. W. Norton. 1948.

and, for that matter, in every branch of science. Unless the investigator is granted the right to ask the questions he chooses, he cannot be expected to get answers. And in order to do this he must be granted the privilege of organizing his questions in accordance with a working hypothesis.

More pertinent is the objection that the questions presuppose the existence of persons prone to act as either agents or percipients, assuming that this tendency amounts to a constant personality trait, to something like a static characterological predisposition. This presupposition should, of course, be regarded merely as a provisional aid toward clarifying a much more complicated state of affairs, represented by a dynamic relationship or *rapport* between two (or more) persons. This *rapport* may be due to the subtle interplay of certain emotional needs, conscious or unconscious, by which agent and percipient are being related to one another. It may be reinforced—or even occasionally substituted for—by a variety of other conditioning factors, organic or functional, in their personality make-up. In previous studies* the present writer described these factors in terms of a *minus-function*, global or circumscribed, lasting or transient, on the part of the percipient. This minus-function may itself be conducive to a profound need for compensation of the existing defect. In a given subject the permanent nature of an existing need for compensation may then be responsible for the static character of the resulting personality trait and thus justify its description in terms of an unusual telepathic susceptibility.

The personality traits of a successful agent seem to be of a much more evanescent nature, subject to profound, but largely *ad hoc* emotional motivations. They are therefore less likely to become incorporated as a static element within the personality structure. They may, however, play an important part in the attitude of the mother toward her child—or of the psychotherapist toward his patient—and be in part responsible for the telepathic elements involved in their relationship.

In any case we have to realize that both sets of conditioning factors—those operating in favor of telepathic "agency" and those in favor of telepathic sensitiveness—may be highlighted in an alternating fashion in any given situation. In this respect they resemble our changing attitudes on the more familiar psychological

*l. c.

level which may shift their focus from the motor to the sensory sphere and vice versa, or which may allow for a harmonious fusion of the two attitudes, even though we may be justified in describing one person as the better talker, the other as the better listener, as the case may be, that is, as a predominantly motor or a predominantly sensory type.

Another minor objection may refer to the suggestive nature of the questions. It may be argued that they might induce a certain group of easily suggestible persons to answer in the affirmative against their better judgment. This admittedly is a risk inherent in any method using a questionnaire. It is also one of the well-known pitfalls of the psychiatric interview. In the present connection, this danger is mitigated by the fact that it is precisely the group of people readily accessible to suggestions emanating from their social environments in whom we are likely to find individuals exhibiting genuine "psychic" traits. Moreover, it need not be emphasized that the questionnaire is not intended to prove the existence of anything like a psychic type in pure culture, as it were. We should be content to unearth the ore with all its impurities from which the rare metal can be extracted. The aim is to define the area within a comprehensive scale of personality variants in which the personality type under review is most likely to be detected.

In an earlier study devoted to the characterological aspects of telepathy* the present writer has described in some detail the portraits of two "psychics" whose claims to possess faculties of an unusual kind were confirmed by experimental investigation of the ESP type, or by well-authenticated observations by qualified witnesses. The first case referred to a well-known medium who had attained a position of eminence as an independent publisher in later life. She had been suffering from a variety of hysteric symptoms, had hallucinatory experiences and was subject to states of depersonalization. In a series of ESP experiments with Dr. Rhine she scored high in excess of chance expectation. Her more spectacular achievements as a "sensitive" have been widely quoted in the literature of psychical research.

The second subject showed marked schizoid traits bordering on paranoid schizophrenia. Yet he, too, had made a satisfactory social and vocational adjustment and some of his claims could be

*l. c.

substantiated by a series of ESP experiments extending over a period of two years under the most rigid laboratory conditions. Confirmatory evidence of this kind is admittedly very rare. But one of the reasons for its paucity may lie in the reluctance of clinical psychiatry to put patients of the type discussed here to the requisite tests.

The difficulties encountered in seeking to verify statements referring to alleged "psychic" abilities are illustrated by the following case history. At the same time it shows once again the difficulties of drawing a strict boundary line between what has here been discussed as the psychic type of personality and pronounced mental disorder.

The subject is an unmarried woman of 37 who made a 500-mile trip to New York to consult the writer about her alleged psychic experiences. She reports that since the age of 15 she has been subject to telepathic influences emanating from men with whom she has been in love or who have been courting her. She claims that she can sense at a distance their erotic thoughts and is sexually aroused by them. On one occasion she dreamed that "N.," one of her "boyfriends," could not put his arm around her waist. Subsequently she learned that he had broken his arm "at that time." She also relates incidents in which she became aware of mortal danger in which persons close to her had found themselves. In one instance she felt that "something horrible" had happened to her younger brother. On the same night her "boyfriend" had been burned to death in a car accident.

It should be noted that she could adduce no corroborative evidence to bear out any of these claims. From the psychiatric point of view they must, therefore, be considered as symptoms suggestive of a delusional trend, reminiscent in view of its chiefly sexual content of the *paranoia erotica* of nineteenth century descriptive psychiatry. On the other hand the woman seemed to be fully aware of the strangeness of her experiences and was ready to discuss the possibility that they were just "figments" of her imagination. Some of her delusions showed a distinctly paranoid coloring. She said "N." had on one occasion wanted to kill her. She hated her mother and said that she had never given her the chance to live her own life. Yet, despite the 18 years that had elapsed since the beginning of her delusional trend the patient had made an excellent vocational and a satisfactory social

adjustment. She was well-groomed and attractive, held a position of responsibility in a publishing house, editing a fashion journal to the satisfaction of her employers. She lived in a common household with her two bachelor brothers with whom she had given up discussing her "psychic faculties" since she realized that people would refuse to give her credence. She stated that no one in the family had ever had any psychic experiences. Both her mother and her father were very highly strung and one maternal aunt had died in a mental institution.

The Rorschach test carried out by Dr. Emanuel Schwartz showed evidence of profound schizophrenic disorder of thinking. It is "the record of an unusually intelligent woman," but of one who had withdrawn into a world of fantasy and "whatever affective relations she had with other human beings, they are not of a mature allocentric kind." The Thematic Apperception Test also seemed to confirm the diagnosis of a full-fledged schizophrenic process.

However, this diagnosis is not altogether borne out by the clinical data. Despite its onset as long as 18 years ago, the process has not led to the gradual disintegration of personality characteristic of paranoid schizophrenia. This is well illustrated by the subject's continued good social and vocational adjustment. But for her interest in psychical phenomena she would never have come to see a psychiatrist. At the present moment, a year after her last interview with the present writer, her condition is unchanged and she is still holding her position. In these circumstances it appears that she should be classified under the heading of paraphrenia as described by Kraepelin, rather than as a true case of dementia paranoides or paranoid schizophrenia. It will be recalled that Kraepelin distinguished the paraphrenias from his concept of dementia præcox because of the striking absence of deterioration in patients of this kind.

There can be little doubt, after all, that the woman described here is suffering from a serious mental disorder, paraphrenic or otherwise. Nevertheless, it would be rash to exclude, therefore, the possibility that an occasional genuine telepathic element may have been involved in her delusional experiences. This, for instance, has been the case in observations in deteriorated schizophrenics described in my book.

It has been indicated that no such evidence has emerged in the present patient. Moreover, a tentative series of card-calling tests carried out with Dr. Rhine's ESP cards yielded no extra chance results. It should be noted however, that brief series of this kind are by no means conclusive and that subjects who have a variety of spontaneous experiences to their credit may prove complete failures under experimental conditions. Using Polonius' phrase, our patient may or may not be "nothing else but mad." But she may also represent a personality variant in her own right which should not be dismissed off hand by attaching to it one of the conventional labels used in clinical psychiatry. In doing so we would certainly miss the opportunity of a proper psychopathological understanding of personalities of this kind. Many persons falling in this group may neither be sick in a strictly clinical sense, nor can they be regarded as fully normal when measured by the standards of our contemporary western civilization. That they would, in all probability, have passed the test of normality in the civilizations of classical antiquity, or among some of the Dionysian cultures described by Ruth Benedict in her *Patterns of Culture,* is another matter.

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PSEUDONEUROTIC FORMS OF SCHIZOPHRENIA*

BY PAUL HOCH, M. D., AND PHILLIP POLATIN, M. D.

For some time, the writers have been following a group of patients who, in their opinion, show a rather definite clinical symptomatology which, however, is little known or not sufficiently appreciated. These cases are very often diagnosed and treated as psychoneuroses. Ofter this error is made, not only after seeing the patient a few times, but often over a long period. Many of these patients have been analyzed for a considerable period of time; and the suspicion has never been raised that they were not psychoneurotic. Some psychiatrists concede that the clinical and psychodynamic structure of these cases differs from the neuroses —although retaining a great deal of resemblance to the neurotic disturbances—and call them "borderline cases." Again, others are struck by the similarity of the mental changes and personality structure to schizophrenia and will diagnose them as schizophrenics. The writers would like to emphasize that this group of patients is not small. They are, therefore, not advocating here a more refined classification and do not wish to indulge in diagnostic gymnastics, but do wish to emphasize that many patients in this category are admitted to mental hospitals, and that probably a much larger number are treated in the offices of private psychiatrists.

The actions of these patients, the prognoses of their cases and the therapy, as we shall see, differ markedly from those of the ordinary psychoneuroses. The writers feel justified in classifying these patients with the schizophrenic reactions because many of the basic mechanisms in these cases are very similar to those commonly known in schizophrenia. Particularly, if the disorder should show a progressive course, symptoms will often occur which will make the diagnosis of schizophrenia convincing even to the most skeptical. It is interesting that very little can be found in the psychiatric literature about the differential diagnosis between psychoneurosis and schizophrenia. Even Bleuler, who devoted a lifetime to studying this latter disease, only mentions the differentiation in a perfunctory way, calling attention to the fact that in neurasthenia, in hysteria, and in obsessive-compulsive neurosis es-

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pecially, it is necessary to be alert to the problem of a schizophrenic development.

The concept of schizophrenia has undergone several evolutions. Originally dementia præcox was diagnosed only when deterioration was present, and some psychiatrists in connection with the cases to be presented here will call attention to the fact that they do not show typical schizophrenic regression and deterioration. This is true for a number of patients. In others, however, even this criterion of schizophrenia can be supplied because a fair number of the cases cited— followed up for years—showed deterioration, and certification was necessary.

Bleuler pointed out the fact that the clinical classification cannot be based solely on the final outcome of the disease and that clinical, and especially psychological, criteria of schizophrenia exist, on which the diagnosis can be based. He stressed especially his point of view that in schizophrenia there are basic symptoms and accessory symptoms. Disorder of associations, rigidity of affect, ambivalence and dereistic thinking were considered primary, whereas hallucinations and delusions, catatonic symptoms, etc., were considered secondary, and their presence for the diagnosis not a necessity. This concept was generally accepted and even applied, for instance in cases of simple schizophrenia. Nevertheless most psychiatrists felt comfortable with the diagnosis of schizophrenia only if delusions, hallucinations or gross regressive manifestations were present. It is furthermore important to emphasize that from the quantitative point of view even these symptoms had to be rather prominent before the diagnosis of schizophrenia was and is made. The final and more subtle emotional, intellectual and psychodynamic changes were rarely appraised properly—especially not in the types of cases here presented.

In establishing the diagnosis of the pseudoneurotic form of schizophrenia, it will be necessary to demonstrate the presence of the basic mechanisms of schizophrenia. These basic mechanisms differ qualitatively and quantitatively from mechanisms seen in the true psychoneuroses. None of the symptoms, which will be enumerated, is absolutely characteristic of schizophrenia. Such a symptom is significant only if manifest in a certain degree and only if several of the mentioned diagnostic criteria occur simultaneously. The diagnosis, therefore, rests on the constellative evaluation of a group of symptoms even though in any given case

it is not necessary to have all the symptoms present which are now to be discussed. The basic schizophrenic mechanism, the autistic and dereistic life approach are present in a subtle way in all the cases presented; but, admittedly, it remains very much a subjective issue with each diagnostician to appraise this symptom. There is no objective way to demonstrate it clinically. The withdrawal from reality usually, however, is much more general than is seen in the neuroses, even in those with some schizoid features. Ambivalence, another basic mechanism in schizophrenia, is usually present if carefully evaluated. In contrast to the neuroses, a quantitative difference is immediately obvious. The ambivalence is not localized, but it is diffuse and widespread involving the patient's aims, his social adaptation and his sexual adjustment. From a quantitative point of view the ambivalence in these cases of schizophrenia is not so much an ambivalence as a polyvalence. Not only two contradictory impulses are present, but many constantly shifting notions in the approach to reality.

The affective behavior in these patients is often similar to that seen in the full-fledged cases of schizophrenia even though much less conspicuous and therefore often missed. This behavior is more readily observed in patients who are hospitalized than in those who are seen in office visits. Such patients very rarely show an impoverished, rigid, or inflexible affect. Some inappropriate emotional connections, however, are not rarely present, and a lack of modulation, of flexibility in emotional display is often demonstrated, especially under sodium amytal. Many of these patients show the cold, controlled, and at the same time, hypersensitive reactions to emotional situations, usually over-emphasizing trivial frustrations and not responding to, or by-passing, major ones. At times lack of inhibition in displaying certain emotions is especially striking in otherwise markedly inhibited persons. For example, a shy, timid person suddenly goes into a rage directed against another person, without being able to motivate this great emotional display sufficiently. The expression of overt hatred particularly toward members of their own families is rather characteristic for these patients. The hate reaction is much more open and much less discriminating than seen in the neuroses.

From the diagnostic point of view the most important presenting symptom is what the writers call pan-anxiety and pan-neurosis. Many of these patients show, in contrast to the usual neurotic,

an all-pervading anxiety structure which does not leave any life-approach of the person free from tension. Practically everything that the patient experiences influences this anxiety. It is a polymorphous anxiety in the sense that no matter how a person tries to express himself or to side-track an issue, to break through the conflict or to avoid it, anxiety is always manifested. All these attempts, to express, side-track, break through or avoid, are present, usually simultaneously. In connection with this diffuse anxiety, a pan-neurosis is also present. The patients usually do not have one or two different neurotic manifestations, but all symptoms known in neurotic illness are often present at the same time. These patients have tensions and many conversion symptoms in connection with anxiety; gross hysterical, or often vegetative manifestations like poor sleep, anorexia, vomiting and palpitation; and at the same time they will express phobias similar to those observed in anxiety hysteria, such as fear of being killed or being in open or closed places, or riding in subways. These phobias are often combined with other obsessive-compulsive mechanisms. The patient is dominated by these neurotic manifestations which constantly shift, but are never completely absent. In a good many patients, in addition, depression is present, or a so-called anhedonic state, in which the patient does not derive any pleasure from anything. He tries, at the same time, to force pleasurable experiences but without success.

Thinking disorders in a gross way, as one sees them in outspoken cases of schizophrenia, in such forms as incoherence and irrelevancy, are not present in these patients; but condensations and concept displacements are nevertheless present in some of them. Much more conspicuous, however, is the presence of catathymic thinking, the expression of omnipotence emanating from the patient, or the feeling of an "omnipotential attitude" of the environment toward the patient. Thought magic is very often present, most commonly linked to the phobic mechanisms. Some of the more subtle schizophrenic thinking-disorders, like concreteness, the confusion between foreground and background, the stereotyped form of thinking are easier demonstrated in psychological tests like the Vigotsky, Goldstein and others, than they are observed clinically. The absurdity test is also positive in a number of these patients. On the other hand, there are a number in whom the psychological tests do not reveal this thinking disorder.

Another important feature in these cases of schizophrenia is the manner in which the patient handles the so-called neurotic material. A neurotic patient is usually very anxious to describe his symptoms in minute detail. These detailed accounts are interspersed with explanations of the origin of the symptoms. If the neurotic individual does not know consciously the origin of these manifestations, he at least tries to rationalize them or to connect them with something which he believes is a causative factor. It is not significant whether these explanations are valid or not. What is significant is that the patient tries to explain the symptoms in a logical, coherent fashion. The pseudoneurotic schizophrenic patients, however, usually do not give a bizarre or eccentric explanation, but remain vaguely contradictory. They are unable to give details and even though in the beginning the material presented is very impressive and looks striking from a dynamic point of view, the patient does not get beyond the first presentation of additional details, but repeats in a stereotyped and rather sterile way. Repeated interviews are often fruitless except for reiteration of their symptoms, and the patient remains vague, indistinct and unclear. Free association is much more difficult in these patients than in neurotics. Early memory material is often completely blocked. This inability to associate freely is especially impressive because usually such patients have a good intelligence and an outstanding ability to verbalize.

Quite a number of the patients with this pseudoneurotic symptomatology develop psychotic episodes which are, however, often of short duration and the reintegration of the patients can be so complete that if one does not see them in the psychotic episode one does not believe that they were psychotic. This is probably also the reason why some examiners find the diagnosis of schizophrenia easy, while others insist that they are dealing with psychoneurotics, depending upon the phase of the sickness in which they see the patient. It is very important in these patients, not only to investigate the quality of the symptoms, but also the quantity. The quantitative aspect in psychiatry concerning symptom formation, and the reaction of the patient to it is markedly neglected in contrast to the qualitative investigation. In these patients we often see imperceptibly a daydream emerging into a hallucination or a vague hypochondriacal idea becoming a somatic delusion, ideas on relationship with other people, in the frame-

work of social anxiety, developing into ideas of reference. To follow these gradual changes in these patients is fascinating from a psychological point of view, and would probably yield in the future a better insight into the formation of delusions and hallucinations. Many of these patients at first treat their hallucinations and delusions as overvalued ideas or perceptions. They say "it is as if I were to hear a voice," or "as if I were to be observed." When the emotional charge becomes more intense, they suddenly say, "I hear a voice," or "I am observed." Many of these patients zig-zag repeatedly over the reality line. One does not observe these changes in neurotics, not even in states of intense panic. In these short-lived psychotic attacks (micro-psychosis) usually three elements appear simultaneously which are very significant. The patient expresses hypochondriacal ideas, ideas of reference, and feelings of depersonalization. They are often interlocked.

An important aspect of these patients is their psychosexual organization. It has been pointed out by several authors that in many of these patients a mixture of all levels of libidinal development appears. Fenichel interprets this mixture as a result of restitution symptom attempts, in the sense that the patient tries to reapproach reality. It is very questionable whether this is so, because many of these patients do not develop to a genital level of sexuality and are consequently able to manipulate only the pregenital drives. Therefore, they cannot make restitution of something which wasn't there. It has also been pointed out that many of these patients show a mixture of genital and pre-genital material, and rather often disclose a pre-genital-colored Oedipus complex. In all the writers' cases, they observed that the patient usually told of a great many sexual preoccupations showing autoerotic, oral, anal, homosexual and heterosexual tendencies, and ideas which sometimes resembled a textbook of *psychopathia sexualis*. These polymorphous perverse manifestations, this chaotic organization of the patient's sexuality, the writers feel, is rather characteristic of these schizophrenic cases. Marked sadistic or sado-masochistic behavior is often linked with this sexual material. This is especially true in patients who rather overtly and without any restraint, express incestuous ideas. Many of these patients, especially under sodium amytal, verbalize these ideas freely, or they express them freely in drawings.

The psychosexual material in these pseudoneurotic schizophrenics, however, is not so openly reported as is observed in most frank schizophrenics, a fact which often leads to the assumption that these patients are neurotics. On the basis of the psychosexual material alone, however, it is not possible in many instances to make a diagnosis. The presence of narcissistic material or pregenital material is often not sufficient for the interpretation of schizophrenia. Fenichel believes that it is possible to differentiate between the anal sadistic orientation of the libido in obsessive-compulsive neurotics and in schizophrenics, saying that the destruction of the object in the schizophrenic is the more archaic phenomenon—in the compulsion neurotic the object is preserved. He, however, does not elucidate these remarks. In the writers' experiences with a good number of patients analyzed by competent therapists, the neurotic dynamics could not be distinguished from the schizophrenic ones on the basis of the psychosexual material which was offered. If such a differentiation were now possible, not so many mistakes in diagnosis would be made.

Similarly, it is not possible to make the diagnosis in these cases on symptoms of regression because regression in these patients is not so conspicuous as in the full-fledged cases of schizophrenia. The writers consider the regression theory in schizophrenia, as expressed by Freud, only partially valid. Schizophrenia is a disintegrative reaction and not a regressive reaction alone. Even though Freud and many others did not believe that schizophrenia is the same as a neurosis, nevertheless the regression theory implied that the difference would be only a regression in schizophrenia to a lower level of functioning than one sees in the neuroses, and that there would be an unbroken chain from the normals through the neurotics to the psychotics. This theory probably also implied that there is only a quantitative difference present between the transference neuroses and the narcissistic neuroses. In the symptomatology presented it is obvious that most of the deviations between the neuroses and the psychoses are quantitative. Still there are qualitative differences present which will be discussed in a later communication.

In diagnosing the pseudoneurotic case of schizophrenia, the writers found a thorough clinical examination the best first step. The Rorschach test offers a corroborative help in some cases, especially referable to the thinking disorders, like concrete thinking,

the whole responses, the attention paid to insignificant details, etc.; and these are well demonstrated. Also readily observed in the Rorschach are the schizophrenic's unpredictable attitude toward various situations, the lack of constructive planfulness, the so-called passive opportunism, and the marked anxiety. The so-called contaminated whole responses, however, are not often present in these pseudoneurotic patients. The marked variability of the patient's performance, which we never see in any other disorder than schizophrenia, shows up very well in the Rorschach of many of these patients. In the writers' experience, however, the Rorschach misses quite a large number of these cases of pseudoneurotic schizophrenia.

The most valuable aid in diagnosis is the sodium amytal interview which causes the removal of inhibitions and often releases unexpected psychotic material. In some patients, sodium amytal produces stress situations which in turn lead to psychotic manifestations, observed, as described, in micro-psychotic attacks. It is an interesting observation that recovered schizophrenic patients, in their psychic structures and organizations, show very similar symptomatology to these patients who still move on neurotic levels. The writers also observed similarities in so-called psychoneurotics who are closely related to full-blown schizophrenic patients. They believe that further study will elucidate some of the mechanisms in the so-called borderline individuals. Why some of these patients progress into typical cases of schizophrenia, while others hold on, even though in a brittle way, to reality, is quite unclear.

Case Material

Case 1

S. S. is a girl of 21.

Family History. The parents, both of Hebrew stock, were born in Russia, but met and married in the United States. The father had had "wanderlust" and finally married at the age of 30 only at the insistence of his brother, who seemed anxious that he should have a family. The father was an inadequate provider, but was apparently attached to his children, and was said to have been faithful to his wife although she never loved him. He was very jealous of her.

The mother was a poor housekeeper, seeming never to accomplish much, even though she spent considerable time at a task. She was a chronic complainer, felt bitter over the economic difficulties the family encountered, and nagged and openly criticized her husband constantly, never indicating any love for him. She showed no affection for her daughter and openly favored her sons. The patient is the second of six siblings; the two older of her three sisters are morose, nervous grls who have few friends or interests, and the younger brother who is very thin, like the patient, is a shy "bookworm." The youngest sister (15 years old) is vivacious and apparently socially adjusted, while the other brother (18 years old) is popular and an excellent scholar, now attending a university. No mental illness is known in the direct lineage. A cousin (son of a maternal aunt) is in a mental hospital, and another cousin (daughter of another maternal aunt) has been under medical care for "nervous complaints." The patient's father died at 51 of a heart attack; he had had a cerebral hemorrhage several years before death.

Personal History. Neither available informant knew details of the patient's birth and early infancy. The baby walked and talked at the "normal ages." A sister states that the patient was the "only one that wasn't breast fed," but does not know any reason for this. Also, the patient was the only child for whom the father had a baby specialist; this was resorted to when the baby was between one and two because she didn't seem to gain any weight. The only remembered illnesses of infancy and childhood were whooping cough (age four) and measles (age six), both uncomplicated. At 10 years of age, she was bitten by a "mad dog" and had to take "20 shots."

The little girl began school at six, but from the first had an "inferiority complex" and found recitations difficult. She was always the smallest, most underweight child in her class. Enuresis persisted until she was nine; fingernail biting has continued to the present. When the parents quarrelled, the patient would become upset and angry, would "scream and fuss," and attempt to interfere actively. S. S. had few friends at school, and, like her siblings, would not think of bringing acquaintances to her discordant home. The only fairly close friend was a cousin one year older, whose family was well-to-do; the patient was very jealous of her. A feeling that all the other Jewish people of the community looked

down upon the whole family because they were partly dependent upon their charity concerned not only the patient but her mother and sisters as well. The patient thought this was responsible, in part at least, for her having few friends. In general, she was well behaved in school, and was a good student, though her grades fell gradually after the age of 15.

Isolated episodes of peculiar behavior which may have been harbingers of her present illness occurred at ages 12 and 15. She dates the onset of her illness from a sharply remembered experience at 15, after which obsessive-repetitious thinking of a single word has been rather constant, and phobic and compulsive reactions have been more or less prominent. However, she kept her symptoms more or less to herself and finished high school, after which she took a one-year stenographic course at a business school. She then began work at the age of 16, and had several short periods of employment in her home town. She came to New York City at 17 (in 1944) and obtained a job, working until hospitalized for an appendectomy in August 1945.

Before the time of puberty, knowledge of the broader sexual facts had been gleaned from conversation with neighborhood children and from her cousin. S. S. had discovered masturbation at 10 or 11; guilt feelings about it are still prominent, particularly because she taught her sister to masturbate. No homosexual or heterosexual experiences were described. In school, she had numerous "crushes" on boys and would talk about these boys at home, but could not talk to the boys themselves because of her "inferiority complex," and she has apparently never had a satisfactory or reciprocal friendship with a boy. Her menarche at 13 apparently was not upsetting. After coming to New York three years ago, she had few dates or social contacts of any kind. She does not drink or smoke.

The patient dates the onset of her symptoms to a night when she was 15. That night she heard what was going on between her parents, while they were having intercourse and was upset by several matters. First, her mother tried to reject her father, saying, "No, what is the matter with you—why should you want any more children when you're not even supporting the family? Sex is all you want." Second, there was personal sexual excitement, which was involuntarily experienced, and which she thought was wrong—together with the "feeling that there was something wrong with

me, like I was going up in an elevator, and I thought it would never go away; I thought maybe I couldn't experience any sexual feeling."

The day after this experience: "I was bitter because my father should have known better than to come to my mother's bed when he knew I could hear all that. Didn't he have any shame? The feeling of disgust was there and I thought it would never go away, and this four-letter word 'f - - -' was popping in my mind and kept going over and over, and not for a minute could I get it out of my thoughts. A couple of months later it was still going over in my mind and then I told myself, 'Why should you think such a word like that, that you cannot tell to anyone, if they asked you what is wrong,' so I changed it to 'worry.' Now, I don't know how I changed it. That kind of frightens me. I don't see how I could get that word out of my mind. I don't know how I ever got through school. Ever since I was 15, 'worry' kept rotating in my mind continually. I got so I couldn't swallow; I couldn't eat. Food did not agree with me because I was worried. The word 'f - - -' made me feel nauseated; I couldn't sleep. I would lie there with agitation, with the idea of the word going over and over."

This change of behavior was noted by persons in the environment of the patient. After this she showed poor progress in school, barely passing many of her courses, and she had less energy and less interest in things. She began to try to figure out what had caused her sickness; and she accused her father of having made her mentally ill through his behavior. Later on, she accused her mother of having caused her illness through meanness. She also accused her sisters of being responsible, because they were mean and critical of her. She began to develop phobias, the most alarming of which, to the patient, was the fear that she would get certain specific phobias or obsessions. She developed the food phobia that she would be unable to eat, and would die that way. While living with a very orthodox Jewish woman, she became afraid that she might become concerned about the cleanliness of food and be unable to eat anything except Kosher foods. Later, while living with a Catholic woman, she feared she was going to have to believe in Christ, and then she would have to tell her family, who wouldn't like it. She had an extreme fear that she might become "insane," which would cause her sisters to worry.

Since they were already nervous, this additional worry and guilt-feeling might make them become "insane," which would make the patient in turn feel so guilty and ashamed that she would probably have to commit suicide. She also had fears that she might have delusions or hallucinations. She said the following: "I'm afraid I will have hallucinations. I know I may never have them, but I'm afraid if I keep on thinking about them, I will develop them. I'm afraid of getting a psychosis; of getting so I wouldn't be aware how much I'm suffering."

S. S. also began to develop compulsions, such as having to turn out the light about six times before going to bed, having to read things over, having to leave her shoes on a parallel line when she went to bed. Generally, she was careless, however, about her dress and personal hygiene, and was listless and indifferent. Coming to New York, the patient read a book on psychiatry. After reading it, she said, "I was a schizophrenic. The book said it's incurable. Lately I thought I'm not a schizophrenic because I have too much awareness of my surroundings." Three years ago, when she was visiting her relatives, they found her moody. She sometimes stayed in bed all day Sunday, not even dressing or going out of the house. She was afraid then, and she was very conscious of it. She believed no boy could love her because of her looks. She was rigid and particular about her eating; had to eat at exactly set times. She spoke about getting fresh food and a balanced diet, but she ate very little. She went to work regularly. About one and one-half years ago, she went home from work shaking all over and unable to talk to any one. The girl would not reveal anything about her sickness, saying, "You won't understand." She appeared to be disturbed that day and had a dazed appearance; had a fixed look in her eyes. She was taken to an endocrinologist, who found her resistive to examination, diagnosed schizophrenia, and advised psychiatric treatment.

The patient was treated in a clinic from September 1945 to 1946. The psychiatrist who treated her stated: "The diagnosis was not quite clear in the beginning. She had many symptoms of obsessive neurosis, but longer observation made it clear that she was a simple schizophrenia with obsessive ideas, with flattened affect, but a very well preserved personality."

Hospital Admission Note. The patient was admitted to the Psychiatric Institute on January 27, 1947. On admission, she

stated: "I have fears of food; I have fears of something happening to my family; I cannot sleep; I get depressed; I become tense, anxious, and agitated." She was co-operative and pleasant during the interview and her conversation was relevant and coherent. Her affect showed tension with considerable anxiety and moderate depression. She denied hallucinations or delusions, and she was well oriented in all spheres.

Attitude and General Behavior. Asthenic, frail looking, but reasonably active, S. S. looks younger than her 21 years. There is average neatness of dress, without peculiarities of clothes or make-up; she is reasonably clean. There is little enthusiasm for eating, her mood is generally apathetic and moderately depressed; but, at times, she is alert and even mildly excited. There is little spontaneous entry into recreational activities. S. S. indicates an interest in making friends but her choice of conversational topics is usually her own illness and details of the illness of another patient about which she is curious. She has not established any cohesive friendships on the ward. From the moment of hospital admission, she talked spontaneously and rather copiously about her illness and her own theories of its cause.

Attitude and Behavior During Interview. When being interviewed, S. S. is reasonably attentive and co-operative, and is fairly relaxed and natural in manner. Her facial expression is moderately expressive, and is appropriate to her mood. Initially, she looked mildly depressed but smiled at times when lighter topics were introduced into the discussion. She appears rather listless and shows little motor activity during interviews. No tremors, tics, etc. She looks rather hypotonic, and her posture is rather lax and "slouchy." Retardation is not apparent.

Stream of Mental Activity. S. S. is rather self-absorbed, but at times is spontaneously productive, generally about her own problems. Her speech is relevant, coherent and free from gross language-deviations. Productivity is normal. She is not distractible by external stimuli but tends to wander gradually from a given topic to related matters which she feels have a bearing on the situation. Reaction time is within normal limits, but varies with topics and her related affect.

Emotional Reactions. Generally, S. S. appears mildly depressed and apathetic but is not retarded and is reasonably labile in her mood. Mood (as expressed in appearance and speech) is usually

appropriate to thought content. At times she speaks of feeling very hopeless and of feeling that suicide is the only answer in the end; but usually she does not appear to feel this way, and more often seems rather to enjoy the uniqueness which she feels her illness possesses. Occasionally a really depressing thought will strike her; and at such times she will appear truly depressed, with ready tears and a more convincing attitude of despair. Ideas suggesting irreparable organic damage or deficits in the field of emotional experience seem most capable of provoking these markedly depressed moods which are usually short-lived. Self-pity is rather prominent and seems to be a source of satisfaction. She is emotionally responsive to situations on the ward and to ideas suggested during interview, and usually is moved to smiling by a sympathetically humorous discussion of her tendency to derive satisfaction from her condition.

Mental Trend; Content of Thought. Grossly psychotic features are not manifest in S. S.'s mental trend. There is no persecutory trend; there are no hallucinations, no grandiose ideas, no ideas of unreality, no nihilistic ideas. She has no somatic delusions or hypochondriacal ideas, except possibly her exaggerated concern over "brain cells destroyed by shock treatments," an idea gained in her reading of popular literature and of magazines on psychiatry. Depressive trends are present, superficially attributed to her feelings that she has been emotionally and economically deprived and maltreated, with indications that deeper factors are her hostile, punitive attitudes toward her family which she cannot recognize fully because of guilt feelings. Obsessive-repetitive thinking has been prominent since the age of 15, and consists of certain ideas or words which "rotate through my mind over and over" and of phobic attitudes. Some compulsive patterns exist, but these are not elaborate or particularly important to the patient.

Sensorium, Mental Grasp and Capacity. Orientation, remote and recent memory, retention and recall, calculation, and reading —all are within normal limits. A few tests requiring close concentration and attention were handled poorly, but the capacity for these functions did not seem impaired. General knowledge is good. The Kent EGY (Kent emergency scale) score is 30. Abstraction and absurdity tests were done well, and the associative trend was good. Definition of words was only fair. Insight and judgment are fair.

In the hospital, the patient remained anxious and withdrawn, but co-operative and friendly. At times she was preoccupied, sometimes she smiled in a somewhat inappropriate way. The patient says she has many daydreams but none of a pleasurable sort. She says she has never constructed fantasies in her mind because it was always filled with "worries about the worst things which might happen." She is afraid that something will happen to her. She also is afraid that she will do harm to her people. For instance, she refused to give information about her mother and sister, and even to write out what she thought about them, fearing that, because she has hostile wishes about them, something will happen to them. She would not like to paint in the occupational therapy class because she fears that her paintings could be interpreted by people, and thus they will see how hostile she is to her mother and sister—who might die as a consequence. On the ward, the patient continually talks with a rather non-modulated affect about symptoms. The nurses have noted a certain silliness about her. She has appeared to be amused without any apparent cause. She is very apathetic; procrastinates about everything she should do. If she is reminded that she should dress or eat, she says, "Never mind—I'll do it later."

S. S. gives the following information: "I used to love my father before I got sick. Maybe I tried to tell myself he had a stroke before I got sick. I'm afraid to think that maybe he got sick because I told him he had ruined my life. What happened then—I didn't want to become passionate. It wasn't a very good sexual feeling. Maybe it was partly hate. I thought the feeling would never go away. I had the feeling I was abnormal."

Under sodium amytal, the patient says, "I worried and have different fears. I keep thinking about that stuff [amytal] going up to my brain. That is one of my fears. Fears of food—just ideas that I wouldn't be able to eat. I lost my appetite. It was just painful to try to eat when you're not hungry. At first I was having these obsessive ideas, then I became depressed, then I had fears. I changed overnight. I just had one word revolving in my mind. I couldn't concentrate. I can't live a normal life. I constantly have abnormal fears and thoughts coming up and I couldn't lead a normal life or be happy. I don't know if I am a man or woman."

Summary of Salient Features. (a) *Behavior*: S. S. is careless, listless, staying in bed all day, with no initiative. No explanations are offered for staying in bed. Material is offered in a vague, stereotyped way, with no modulation of affect. (b) *Structure*: There is diffuse, all-enveloping anxiety. There is a large array of symptoms: pan-anxiety, pan-neurosis with obsessive-compulsive, phobic and hysterical complaints (anorexia, vomiting), depression, marked anhedonia, inappropriate affective response. (c) *Thought Processes*: S. S. makes use of peculiar expressions like worry as to how her brain organ is shaped. There is conscious displacement of the word "f - - -" with the word "worry." She manifests belief in thought magic and also shows a fluctuating appraisal of reality and, at times, depersonalization. Under amytal she disclosed marked ambivalence toward both parents, and overt hatred, of all members of the family, with projection tendencies. S. S. is very infantile sexually and has difficulty in deciding whether she is male or female.

Case 2

S. R. is a 29-year-old, unmarried woman of average intelligence and pleasing personality, who began, eight months before her hospital admission, to complain of fainting spells and weakness of the legs, followed by an increasing number of somatic complaints.

Family History. The family history is free of mental diseases. The father was a kind and lovable person, who died in 1929, the mother is nervous, irritable, worrisome. Four siblings are married and well.

Personal History. S. R.'s birth, development and childhood were normal. She enjoyed school and was graduated from high school with honors, then studied dress designing. For the next eight years she held different jobs in dress shops. No sex instruction was given to her, and menstruation shocked her. At 18, she had heterosexual experience. She had many girlfriends but only a moderate number of boyfriends. Masturbation and anal intercourse were practised. S. R. was always self-conscious because of her large body and plainness. She considers herself an affectionate person who has received little warmth and affection for the past 10 years. Eight months prior to her admission, she began to feel weak in both legs and had symptoms of faintness. These spells would last for a day or two, and then she would feel bet-

ter for two or three weeks. In January 1945, she had seven attacks of lower abdominal pain; an appendectomy and partial ovariectomy were performed. Her symptoms, however, persisted. She became engaged; and—when she saw her fiance—the symptoms became very marked. Later, in addition to the previously-described symptoms, she began to gag and was suddenly unable to swallow. She was seen by different physicians and psychiatrists. They found that she would talk eagerly and anxiously about her symptoms; that she showed marked anxiety, hypochondriasis and hysterical features, and that the fainting attacks were typical hysterical attacks.

Soon after hospitalization, however, there was a suspicion that the patient was not a case of hysteria, but one of schizophrenia. The first examination revealed the following: S. R. complained constantly of being tired, weak and dizzy. She repeated that she was not a psychiatric case. She fainted gracefully several times. After she had complained a great deal, she apologized for talking so much and for being silly. She described her feelings in a vague way, without being able to give any detail with clarity and conciseness. She rambled, elaborated, got side-tracked and gave irrelevant details. She was anxious, depressed, fearful and preoccupied. In connection with her fainting she gave associations as follows: "My organs are all upside down. I'm all dried up inside. I'm divided. Part of me is here and part of me is floating away." After this interview, the patient walked in a stooped position, haltingly and off balance. Following a visit from her relatives, she became excited, rushed around, asked nurses and doctors to help her, said, "I'm awfully worried. I had sexual relations in the posterior position and ever since I have this white stuff—this leukorrhea came out of my mouth. It also runs out of my rectum sometimes." Then she quieted down and said the following: "I'm guilty and anxious. I had a sexual relationship with a soldier to whom I was engaged." She also admitted, in a vague way, a homosexual experience. S. R. continued to complain about pain in her right ear, and of neuritis in her face and back. She said, "My organs are backside to, upside down. If only I could be turned around from back to front. I feel I'm not a woman. My body in front is just straight, my legs go straight down. I want to tell you everything now. I was afraid before because I thought it wasn't nice to talk about such things but I have always enjoyed

my own body. I used to masturbate a lot until I had relations with my boyfriend. I love intercourse by rectum. Is that bad?"

Under sodium amytal, this patient showed a marked emotional outburst, revealed that she was closely attached to her father and that after his death her mother became melancholy. She and her mother did not get along well because her mother was quite old, moody and sad. She disliked her brother and was very jealous as a child of the good looks of her sister. She had a repetitious dream three or four years ago in which she committed suicide. Next she said that she was very frightened when her menses began and told about two of her sister's dogs who used to "light on her chest." She thought they did so because they knew about her sex life. The Rorschach pictures reminded her of a dog. Several times during the interview, she cried that she was ugly, unattractive and fat. She said that she has a bad odor which started immediately after her first masturbation.

In the hospital, the patient began to express sadistic thoughts toward many different people—doctors, other patients, family members. Everybody who frustrated her should be killed. She was apprehensive and fearful about almost everything. Said, "I have to analyze anything and everything which goes on, then I cannot decide. Sometimes I love, sometimes I hate. I even analyze the cleaning tissues I use." She says she has strong guilt feelings about perverted sex thoughts and about her past. She began to show blocking during the interview, then became confused, indecisive and agitated; expressed death wishes toward her mother; admiration and envy of her sister; marked ambivalence toward her boyfriend. This behavior was especially marked after week-end visits. Strong feelings of inferiority were maintained. Then for a short period she began to hear voices which told her how bad she was. She would see flashes of light, feel electrical impulses and think she was influenced by others. Feelings of unreality and depersonalization were also frequently reported, especially with the idea that she was becoming more like a man. Psychotherapy made very little impression upon her. She always produced the same material without being able to enlarge on details.

Summary of Salient Features. S. R. is self-conscious about her plainness. There are all-pervading anxiety, and hysterical manifestations, like fainting spells—and, in addition, abdominal pain, for which appendectomy was performed. Astasia abasia, hypo-

chondriacal preoccupation, obsessive ideas of killing, feelings of depersonalization are manifest. There is marked ambivalence toward members of the family and toward her life-approach in general. A sexual Oedipal relationship is openly revealed. Male-female differentiation is confused. The patient also shows incipient projections and ideas of reference. Later on, she is psychotic, hearing voices, feeling electrical impulses, having paranoid delusions.

Case 3

H. McC. is a single woman of 38.

Family History. The patient's father died at the age of 55. He was a self-satisfied person, who did not get along with the patient's mother, mainly because he was in financial difficulties. The mother, a very narrow, rigid, religious woman, left her husband, lost all interest in men, and supported herself running a boarding house. The patient's older sister, aged 40, is married and well-adjusted. A brother is "nervous," otherwise adjusted. A younger sister, aged 36, is not married and not interested in men "because she saw her mother's unhappiness."

Personal History. The patient was an unwanted child. The mother's pregnancy and delivery were normal. The girl's early development was normal; she was very affectionate, obedient, a well-liked child who got along very well with other children. She attended school and did well. She was especially interested in religion. After finishing high school, she worked for a dentist in her home town and later in New York. She was discharged because her employer felt that the patient had lost interest in her work, had become listless—her arms hung down at her sides, and she slouched along. Then she obtained a job in a hospital. She began to complain of abdominal pain. An appendectomy was performed, but this did not improve her condition. She complained of marked weakness, and of lack of strength, but was not depressed. Later, she began to complain of constipation and of a "foggy" feeling. She became very much irritated by her mother and sister, and complained that her heart hurt her. The relatives believe that the patient was magnifying her complaints and expected to be catered to, as she had had this tendency all her life.

On hospital admission she was co-operative, made a good impression; appeared, however, to be somewhat self-absorbed; showed

rather meager productions during interviews, but was relevant and coherent in her answers. At times she appeared to be somewhat depressed, and complained of fatigue and pain in the cardiac region. Slowly, the patient talked more freely during therapeutic interviews and related that she had had a few unhappy love affairs which were very much on her mind. She had been in love with a medical student. He had terminated the relationship, she thought, because he did not like her. She then entered into an affair with a married man, which lasted for about seven years. About four years ago, she had become pregnant and had had an abortion. In the same interview she complained of stiffness, tenseness, pains and cramps in her legs and feet, pain in the right side, and difficulty in breathing. At the same time, she expressed fear and shame whenever she had to talk with people in the course of social contacts, and a marked feeling of inferiority.

In another interview, H. McC. expressed marked hostility toward her mother and sister, saying that they were unsympathetic; they believed that she was not ill, and forced her to go out to work. She also complained about the prudishness of her mother, who tried to instill in her a hostile attitude toward men. During this interview, the patient displayed a number of hysterical mechanisms. She could not get up; and, when she walked, she tended to sink to the floor, or she walked about supporting herself by clutching the wall. Then she said, "My subconscious mind plays tricks on me. I was in a trance. I seemed to be separated from my body. My conscious mind has to pass on everything my subconscious mind does. My subconscious mind tries to do and say things that other people have in their minds. I feel what they think. The words I cannot understand are 'positive' and 'negative.' It means that I'm trying to be certain about things. I feel like I'm hypnotized. Did you hypnotize me? At times I have the feeling as if a voice was telling me to go to sleep and to act like a child and be babied. I think the girls at the hospital were making fun of me. I hear the girls there discuss subconscious mind and its effect. I double-talk. I say things that have two meanings. Anybody that does anything for me I have to follow. Now I hear a voice. I masturbated when I was five with my sister with my finger. My mother caught me and she was very angry. I did it again when my boyfriend left me, but have not done it in the last

year. I have to do it. I thought I would go crazy if I didn't have a man." . . . "I love my father."

In a further interview, this patient said, "I have a male mind and a female body and I don't like women." Asked how long she had been hearing the voice, she said, "On and off for about two years." Sometimes it was a real voice, sometimes she thought it was her own ideas "which became loud." H. McC. at first expressed ideas that people about her were unsympathetic to her. When she became more fearful and anxious, she said, "They were watching me—looking at me—tried to do nasty things to me. They know I can't sleep. They know that I have desires. They know that I hate my mother. They tried to persecute me on the ward. Some patients behave toward me like my mother does. I hate her because she has destroyed my father's self-confidence. I felt that she was quarrelling with him unnecessarily and had driven him from the home, thus depriving me of his affections."

She told of the following dream: She was being pursued by the Nazis. She decided to pretend there was an escape—imagined the door and stairs and descended. The Nazis followed her, but when they got there, they also played the game and pretended they were not chasing her. They carefully ignored her. She interpreted the dream by saying that the false escape is the hospital, the Nazis inside are the patients who are really part of the dangerous outside world, but who do not seem to be persecuting her, but they only pretend to do this. When one of the patient's requests was refused, she went into a "hysterical attack," becoming immobile for a while, not responding to stimulation; suddenly, however, she reverted to normal activity. The patient called these attacks hysterical, even though they looked more like short-lived catatonic episodes. She interprets these episodes as punishment, panic, protective desires for withdrawal. She often hears a voice very clearly in such a hysterical trance. She also said the following, "I want a home and have everything nice, and peace everywhere. I want somebody to care for me and love me. I want to be good and make people happy. People make me very nervous because I don't understand them. I am very unhappy when I can't please them." She stated that she thought she loved her mother more than her father, but not after the father left. The father was much less critical than her mother. When relating this, the patient smiled inappropriately. Asked why she was smiling, she

said, "I don't know. It's peculiar that I smile. I should rather cry."

Summary of Salient Features. This patient was listless, lost interest in work, had a pan-neurosis—anxiety, depression, hysterical display, abdominal pain, marked weakness, "foggy" feeling, astasia abasia. There was an all-pervading feeling of inferiority. Material was presented in a self-absorbed vague way; no details were given; there was great difficulty in free association; early memories were blocked; there was open disclosure of Oedipal difficulties and marked sexual infantilism. Later, H. McC. was psychotic, with paranoid ideas, excitement, hallucinations, and inappropriate behavior.

Case 4

T. L. is a 31-year-old single man, who complains about marked tension, stammering and gritting of teeth, chronic digestive trouble, insomnia, and inability to carry on his work as a research chemist. He was treated with all kinds of psychotherapeutic approaches by different psychiatrists and psychoanalysts.

Family History. T. L.'s father is described as sympathetic, good natured, a scholar; the mother as anxious, overprotective. She had chronic indigestion all her life. When the patient was born, the parents were fairly old—the mother was 40. The father suffered from tuberculosis.

Personal History. The boy's early development was normal, except that he began to stammer when he began to talk. He developed a hernia at the age of five, which prevented him from partaking in outside activities. He usually played by himself, being an only child, and he was very much attached to his father, who studied all his lessons with him. The patient was of outstanding intelligence and was head of his class.

T. L. denies having masturbated. There was, however, some sexual pleasure connected with manipulating his hernia, which was done by himself, or whenever a physician examined him, or by his mother. At the age of 12, he began to have fantasies of kicking girls "in the shins." When he had these ideas, he manipulated his hernia. He was graduated from high school and then went to college, where he majored in chemistry. His father died in 1938. The patient then lived with his mother except for a short period when he was away from home alone, in Cleveland. In 1939 he

began to have indigestion and feelings of weakness. He had an appendectomy in 1940; his symptoms cleared up temporarily. He obtained his Ph.D. in chemistry and in 1944 found a position as a research chemist. Subsequently he received a severe burn on his right arm and developed a peptic ulcer soon afterward.

He indicated that his present illness began in 1939 when he was teaching in a high school. He had been fatigued, tense and had chronic indigestion. He could not maintain discipline in his class, was very much preoccupied with himself. One of his superiors remarked that unless he learned to sell himself and had better contact with people, he would never get along in this world. In 1944, while working on his job, he believed that a superior was trying to appropriate some of his work, and he became quite suspicious of him. The fatigue became more marked and he then began to have "hissing spells," in which he would clench his hands and teeth, and make hissing noises. The patient consulted several psychiatrists who diagnosed him as psychoneurotic. A Rorschach was given the patient which indicated a deep-seated disturbance, most likely schizophrenia. He was then hospitalized for 10 months in a psychiatric institution, where a diagnosis of obsessive-compulsive neurosis was made. After discharge from this hospital, he was analyzed by two different analysts unsuccessfully, and was finally admitted to the Psychiatric Institute.

On admission, the patient was bursting with energy and appeared to be very tense. He was neat, well dressed and sociable with the other patients, displaying, however, no emotional qualms. He was relevant and coherent; polite, cheerful, pleasant; at times somewhat elated and talkative. He often laughed loudly and occasionally inappropriately. He expressed many hypochondriacal complaints about chronic indigestion, constipation, diarrhea, headaches, chronic sinusitis, and inability to have ejaculations. He has ideas that he is better than any one else, morally, socially and intellectually, has frequent sadistic fantasies ranging from beating women to wholesale murder. These fantasies originally were associated with masturbation, but now they come on without it, and sometimes his ideas are so dominant that he cannot shut them out. The patient says he has never in his life had any sexual contact with the opposite or the same sex. He complains of being subject to outbursts of rage—directed toward anyone who frustrates

him. He also has fetishistic manifestations. He likes to touch silk and women's clothes, which produces sexual excitement in him.

During interviews the patient expressed many incestuous wishes concerning his mother. He was usually very submissive toward the therapist, which masked an extremely hostile attitude. Under sodium amytal he produced the following: (What is your trouble?) "Tension and sexual complications. My social relationship, and especially if I want to have heterosexual relationships, fear comes up." (What difficulty do you have in approaching people?) "There is an absence of feeling, and indifference and apathy in my relationship to people. In professional relationships I can get on well. When the relationship generates or becomes a social or a sexual one, a fundamental block appears and I cannot bridge it." (What do you feel when you're with a girl?) "I have no conception of sexual intercourse. I was successful in avoiding it. Statements about sex came as a great surprise. I recognized copulation in animals, in biology, but I did not face it in humans." (Do you have any fantasies?) "Yes, I'm seeing the back of a girl and her legs. She is being spanked or struck. I'm being an observer." (Do you have any other fantasies?) "Yes, wholesale destruction. I want to kill the patients, the nurses. I want to rape them. I also have the fantasies of dropping bombs on Russia. The whole thing is a gory mess." (Do you have ideas of destroying the world?) "I haven't yet but give me time. It's an attractive idea."

He then says: "I have to destroy people if I meet competition in my work. I have the feeling that I must make good, so good that I could not be challenged. Competition mobilizes fear. I also have lack of self-control and ability to live a quiet, placid life." (Are you more at ease with women or men?) "Men. Physical contact with women seems dirty, filthy and obscene. The female body is essentially weak, flabby, dirty and does not moderate any respect at all." (Would you be better off without sex?) "I have wondered if becoming a eunich would be beneficial. If your right hand stinks, cut it off. These fantasies are becoming more and more pronounced. I can't shut off the fantasy. I cannot think of anything else. I'm very much ill at ease in social groups. It's not a pleasurable experience to be with people." (What did you learn during the analysis?) "Nothing. I'm bucking up a stone wall." (Do you have any dreams?) "Rafts of them—usually violent ones and the element of fear is in them. I have a repetitious

dream—one is driving a car, another car is coming toward me. There is a head-on collision but I'm not killed. I am engaging in hunting and fishing, and there is no yield."

The patient received a small amount of "ambulatory insulin." Under the influence of insulin, he suddenly changed. He expressed weird grimaces, maniacal laughter, strutted about in the room, mumbling to himself, crying out loudly, at the same time apologizing for his conduct. Then he began to make hissing sounds, clenching and unclenching his fists, as if in a rage. Days later, with no insulin, T. L. was himself again, polite if spoken to, but appeared to be very tense, expressed aggressive ideas toward everybody around him, would like to smash the whole hospital. He denies having hallucinations, but thinks that people around him are "against him." He eats enormous amounts of food, for instance, five helpings of scrambled eggs or 10 eggs in one meal. Occasionally, he falls asleep during the day in the middle of his activity, saying that everything goes blank then.

Summary of Salient Features. T. L. is shy and seclusive, manifests pan-anxiety, and a marked feeling of social anxiety, especially in sexual situations. There are feelings of ambivalence and inferiority—and of superiority which, at times, reaches the height of omnipotence. Again, others are omnipotent and he weak. The pan-neurosis tends toward fatigue, stomach ulcer, hypertension, bulimia, sleep disturbances, diarrhea, headache, chronic sinusitis, obsessive fantasies and hypochondriasis. In addition, there are vague paranoid manifestations, psychosexual infantilism, masturbation, sado-masochistic fantasies, fetishism. Male-female differentiation is impaired. Under sodium amytal, he exhibits mass destructive fantasies. There are marked feelings of omnipotence, thought magic, autistic and dereistic formulations. Reality testing is impaired. At times, T. L. is psychotic. The Rorschach indicates: schizophrenia or epilepsy.

Case 5

P. C. is a 29-year-old married woman who, following an automobile accident, in which her oldest male child was severely injured, has suffered from marked self-recriminatory ideas, a feeling that she is two persons, a desire to kill members of her family and a fear that her husband might kill her. She has been married twice; there are no children by the first union, but three by the second.

Family History. The family constellation consisted of an amalgam of, on the maternal side, Hungarian-Catholic, and, on the paternal side, Austrian-Lutheran. There is no history of mental illness on either side of the family. The mother and father came to this country just after the first world war and were almost immediately married. They had at this time and still have marked language difficulties, not only concerning English, but with each other's languages. The mother was markedly overprotective of the daughter. The father was very strict, alcoholic and somewhat improvident.

Personal History. P. C.'s birth and early development were normal. She experienced marked difficulty in speaking, however, because of the general language confusion at home; and the father was very strict, not permitting the child to speak at the table. The mother was very overprotective, restricting the patient's play activities to girls; and only girls could come to the house. The mother and father were often separated because of their diverse jobs. The patient usually went with her mother from one domestic situation to another. She felt very insecure and lonely as a child, and became seclusive and moody. The father and mother constantly quarreled with each other. P. C. preferred her father even though he was abusive to the mother on many occasions. Her attitude toward the mother is now one of frank hostility, and she is rather ambivalent toward her father. The patient completed public school and then went to trade school for a year. She did some sewing and designing. Later on, however, she became a model. She received no sex education. She denies having masturbated. Her first heterosexual experience was at 19. Soon after that, she married. This marriage ended five months later by a divorce. She gave up her first husband because he was cruel, unreliable and mysterious, although she enjoyed him sexually.

P. C. was well until October 1946 when her illness was precipitated by an accident to her oldest boy. He fell out of the back seat of a car which she was driving. Similar accidents had happened to the same child twice before. On these occasions, however, she was not alone with him in the car. The patient did not mention the last accident to her husband, who was away working. She asked him to send money because the child was sick. It was established later that the patient actually did not become ill after the accident but 40 days later, when the child was practically recov-

ered. She then began to cry, expressed self-accusatory ideas, said that she was a bad mother and an inefficient housewife. She began to feel hopeless and had no desire to live. Phobic manifestations appeared and she was afraid that she would kill her three children and be killed by her husband. She played with the idea of suicide, but made no overt attempt at it. She also complained about hearing motors roaring in her ears; began to think of herself at times very objectively; and she would smile at her own activities and reactions. She also could hear herself talk to herself as if there were two persons. At times she would laugh at her own feelings. She had a sensation of voices inside her head repeating things which she had previously thought of, or reminding her of what she had done. She realized that these voices were products of her own thinking, nevertheless she could not control them; she felt obsessed by them.

The woman was seen in a psychiatric clinic and treated unsuccessfully for depression. Later she was sent to the Psychiatric Institute. Here she was co-operative, attentive and did not exhibit anxiety, sadness or tension. She expressed the ideas already mentioned and added that she felt two different voices inside herself. At times she stated that she would smile at herself as though she were a person looking down from a distance at her own self and her own actions. It was found that this patient had a mystical, ritualistic type of thinking.

Under sodium amytal, she talked in abstractions and in a very detached manner. She brought forth the following dream, which occurred several times. It has a definite religious, cosmic significance for her. "I was in labor in a barn, in a cradle, part of the time I was in the cradle and part of the time I was lying in the straw, but the straw was very soft. I could see the little cradle like an old American antique. There was a gold life-like light. The baby that was born was two years old. He had little yellow ringlets. He got up and walked away and the Wise Men followed him. I sat, and the labor pains continued uneventfully. The crowds outside wanted to see him." This dream she did not treat as an ordinary dream. It was considered a vision and for three or four months following it, while she was 16, she considered very seriously becoming a nun. She says, "With these dreams I used to get the feeling of being holy. It was like sunshine radiating from within. I thought it might be a feeling of ambition or a feel-

ing to get ahead." She believes that all her dreams have a significance but not similar to this. She is markedly catathymic. She believes that she may attain anything by wishing. Her thoughts are, in fact, constantly wish desires, wish fulfillments. She believes that by wishing she can control, she believes in thought magic, she can kill by ideas.

P. C. related in another interview that she feels torn between two conflicting emotions concerning her husband and children. She wants to be a good wife and mother. At the same time, she resents very much that she is "tied down"; that she is not free to live her own life. She would like to become a writer. Sexually, the husband is repulsive to her, and she is frigid with him. With the first husband, she had sexual satisfaction, mainly obtained by oral activity.

The Rorschach examination revealed several "contaminated" responses which were considered pathognomonic of schizophrenia.

Summary of Salient Features. The central theme here is aggressive reaction formation around which a great deal of guilt feeling is generated. Aggression is partly outward (killing the husband and children, or the frustrating environment), partly inward (suicidal ideas, ideas of unworthiness).

Some projection is present, which is unusual; she fears being killed by her husband. The patient's mental disturbance showed three levels—neurotic, depressive and schizophrenic. On the neurotic level, P. C. displays symptoms of anxiety hysteria, phobic and obsessive manifestations. On the depressive level, there is a marked introjection; deep hostility toward the mother; marked ambivalence toward the father; a rigid conscience with a tendency to rebel; strong oral drives; the seeking of expiation of guilt. This is not on an unconscious but practically on a conscious or preconscious level. On the schizophrenic level, this woman is introverted, loosely connected with the environment, replacing reality with day-dreaming, always anxious, catathymic. In her paintings, the patient shows symbolic condensations and fragmentations. She believes in thought magic, projects her ideas into utterances and performances. She animates things. Boundaries between the ego and the world are hazy. A tendency to cosmic fusion is present. Sexually, P. C. shows a strong narcissistic, exhibitionistic trend,

with sado-masochistic behavior. The male-female differentiation is unclear. This patient fights disintegration vigorously and tries to hold on to reality.

Summary

Attention is called to a group of patients who show a clinical symptomatology which is considered by many psychiatrists to be psychoneurotic. These patients do not deteriorate and have no delusions or hallucinations. Nevertheless, they show clinical symptomatology which is very similar to that seen in schizophrenic patients. It can be demonstrated in follow-up studies that a considerable number of these patients have short psychotic episodes or later become frankly schizophrenic. A few of these "borderline" cases are described and their symptomatology analyzed. It is suggested these patients be classified "pseudoneurotic form of schizophrenia."

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BIBLIOGRAPHY

Bleuler, E.: Textbook of Psychiatry. English trans. by A. A. Brill. Macmillan Company. New York. 1924.

Fenichel, Otto: Psychoanalytic Theory of Neurosis. W. W. Norton & Company. New York. 1941.

Polatin, Phillip, and Hoch, Paul: Diagnostic evaluation of early schizophrenia. J. N. M. D., 105:3, March 1947.

FROM THE AUTOBIOGRAPHY OF A LIAR*

Toward the Clarification of the Problem of Psychopathic States

BY BEN KARPMAN, M. D.

PART ONE: BIOGRAPHIC

I. The Family Setting and Background
II. Personal History
III. Sex Life
IV. Prison History
V. Hospitalization
VI. Emotional Reactions

PART ONE

In a previous communication on the subject,** the present writer has attempted a brief inquiry into the general cultural as well as the more specific psychiatric aspects of lying as a particular form of human behavior. To make this inquiry clinically definitive, these considerations will now be buttressed by the presentation of a particular case, that of Peter Cooksey,† an adult white man serving a life sentence for murder. While Cooksey has written voluminously of his life,‡ and a great deal of work has been done by the physician to check, counter-check and balance the material, it contains so many inconsistencies, exaggerations, discrepancies and contradictions, that it appears wholly unreliable from any factual standpoint and the developments of his life remain a matter of mystery and speculation. How much of his narrative is influenced by excessive imagination; pathological lying, witting or unwitting; failure of memory; or some other mental quirk, is difficult to say. However, persistent lying leads to impossible contradictions which in themselves provide internal evidence and clues to the basic make-up of the individual and the mental organi-

*This is Part One of a two-part paper. Part Two will be published in the July 1949 PSYCHIATRIC QUARTERLY.

**Lying: A minor inquiry into the ethics of neurotic and psychopathic behavior. PSYCHIAT. QUART., 23:1, January 1949.

†"Peter Cooksey" is not the prisoner's name or an alias, but was invented for this purpose.

‡For a detailed report of the case on which the study is based, see Case 10, in Vol. III of the author's *Case Studies in the Psychopathology of Crime*. Medical Science Press. 1948.

zation. Hence, in spite of all, something of value to us emerges from the narrative. It provides us with a picture of the man's personality make-up and mental organization.

I. *The Family Setting*

The Family Background: Officially, almost nothing is known concerning the patient's family, and his own account is so unreliable as to yield only questionable information.

From the official records, the following meager data are gleaned:

Father: A brother of the patient has stated that their father was very cruel. The patient himself, on examination, said his father was still living and had been a saloon-keeper until the advent of prohibition.

Mother: The medical certificate states that the mother and one of the patient's sisters are inmates of a mental hospital. The patient himself, on examination, said that his mother "died a few years ago while he was in France during the war." (Inasmuch as this statement was made in 1929, and World War I was concluded in 1918, it is obviously inaccurate. Moreover, there is nothing to indicate that the patient was ever in France.)

Siblings: The official record describes the patient as probably being one of five children, but he himself in his narrative names 11—besides half-brothers and sisters. One died in infancy, and one was killed in military service overseas in 1918. Several half-brothers are dead, and two are living.

Let us now attempt to summarize as much of the patient's own narrative material as pertains to his family history. As already stated, this material is replete with inconsistencies, discrepancies, and probable lies.

Father: The patient's narrative—in contrast to his examination statement—says the father was a carpenter with a high school and college education. (Highly improbable.) He was very good to his children, but following the death of a son at the age of two and a half, "started to drink heavily, neglect his family, and to frequent red-light districts of Jacksonville [Florida]." The patient's mother obtained a divorce and remarried. The father was quick-tempered and jealous. He also remarried.

Mother: While the patient makes frequent reference to his mother, her goodness, his love for her, etc., he tells us little about

her actual life beyond the fact that she was obliged to divorce her husband for infidelity and that she later remarried.

Siblings: The patient mentions 11 children, five boys, six girls, as his own brothers and sisters; and five others, three boys and two girls, who, presumably, were born to his mother by her second husband. He states that he knows nothing of his father's children by his second wife. Of the five brothers, one, George, served a sentence in the penitentiary for assault with intent to kill. One was killed in military service overseas in 1918.

With respect to many of these siblings, the patient relates numerous incidents which could not possibly have been known to him personally if he was born when he says he was and if he left home when he says he did. Whether these incidents are elaborations of hearsay or flights of pure imagination, it would be difficult to determine.

The Family Situation: Here again we are confronted with so many conflicting statements that it is impossible to draw any reliable conclusion. According to the patient, the family life was harmonious until the death of his little brother, Gardner, when his father began to drink and run with loose women. At the same time, we are told that his father was jealous of the patient's older brother, George, and was instrumental in sending him to the penitentiary; and that "he certainly did seem to hate the very sight of him"; that "he never liked George from the day he was born until he left home never to return"; and that "he used to whip him severely sometimes"—statements which certainly do not belong to a picture of a happy home.

His detailed descriptions of the furnishings in his childhood home sound like imaginative wish-fulfilling pictures rather than actual reproductions from memory, and the probability is that his childhood surroundings were characterized by far more poverty and squalor than he has chosen to reveal.

II. *Personal History*

(*Alternating Developmental and Criminal History*)

All of the information provided by the patient with respect to his personal history is open to a great deal of doubt.

Birth and Early Development: According to his narrative, he was born in Arcadia, Fla., a village of 200 inhabitants, in April 1885. Concerning his early life, he says:

"My home environment was very good and I was humored by my parents, just as all infants are. Before I was a year old I was taken to my mother's home in Columbus, Ohio, where I used to spend my time playing with playthings my parents and other relatives gave me. My father taught me how to shoot marbles before I started to school; in fact, he used to get out in the yard and shoot marbles with me.

"I passed my time like that until I was four years old, when I had learned to walk and run around and play with my other brother or any other children who might be around."

He makes the following statement concerning his early home life: "My parents were very strict and never permitted me to mingle with other children unless I was shadowed by one or the other of my parents and it can readily be imagined that I did not have the fun which other children enjoyed. There were a great many children representing a variety of homes in our neighborhood. The same lack of freedom prevailed in our home both in Columbus and when we went back to Florida in the winters."

This is almost certainly his idea of what should have been or what might have been, rather than a true statement of what actually was. In the light of various episodes which he has related, it is almost impossible to credit this statement as being true.

Education: He says that he started in school when he was six years old, and tells us that:

"I did not learn very fast; I seemed to be very stupid, but the longer I went to school, the more interested I became in my school and I started to learn a little faster.

"My mother used to come and get me and my brother who was going to school at the same time. He was in a higher grade and class because he was older than I. She used to come for us every day until I got through my first year."

This is also probably part of some wish-fulfilling picture or of an attempt to create a good impression. One simply cannot imagine any such parental interest or supervision as he describes.

He tells of going through the sixth grade, and devotes much of his narrative to an account of his friendship with a girl schoolmate, Hazel, and paints a picture of himself as a model little gentleman and something of a hero in numerous small episodes where she was involved. Whether all this was supposed to take place in Ohio or Florida, nobody knows, and the major probability is that

none of it occurred anywhere. From his subsequent narrative, it appears that he never progressed far beyond the sixth grade, although he speaks of having gone to school for a short time after he had run away from home and was living with some people in the vicinity of Key West; and in another place he talks of having finished high school in Ohio at the age of 20. His brother stated that he only went to school for two years, but he gives evidence of having had more schooling than this. In an official interview, he himself said that he "attended school about eight or nine years" and "left when he was about 17."

Health: How much reliability can be placed on the patient's own statements under this heading, no one knows; but some of them sound as though they might contain at least a nucleus of truth, and they are reported because of their possible diagnostic interest.

He tells us that when he was seven years old he had the measles and that "after I was in bed about three days I started having spasms." He says that he had over 12 of these and was treated for them with "shots," and adds: "I got over the measles, but I never got over having spasms altogether, although I have been without any a long time." He claims that during these "spasms" he could not recognize anyone or anything around him; but at the same time says that he was in an "agony of pain," and says that he has had many hard falls during a "spasm." He tells of falling off a wagon while he was driving and not coming to until two hours later, when he found himself in the house of a strange woman, who was trying to take care of him. He says that "the doctor who came to see me told my mother that it was a hemorrhage of the brain." He claims that it has been 16 years since he last had a "spasm." He says that he did not have much other sickness except chills and fever, but that "I have only had that twice since I was a kid."

The foregoing seems to tie in to some extent with the patient's statement under examination that he was in "Chatahoochie, an insane asylum" for over a year, circa 1896 (age 11), because of "fits" that he used to have, which, as he describes them, sound like epilepsy. However, his narrative does not make any mention of being hospitalized for this condition, nor do we hear anything about "Chatahoochie." He tells rather about having had "spasms" while he was a prisoner and of being excused from hard labor be-

cause of them. (Was this a form of malingering in order to get out of work, and did he subsequently substitute an "insane asylum" in order to provide the physicians at St. Elizabeths with a "psychotic" background?)

Early Antisocial and/or Criminal History: Apparently, when he was between 11 and 12 years old, he ran away from home with another boy, from whom he became separated; landed among sailors at Tampa, Fla., and went as a cabin boy to Key West, where he worked as a cook in a fishing camp. According to his story, he ran away from this camp after the captain whipped him; and lived with some people who had befriended him, until he got another job on another boat which would take him in the direction of his home. He asserts that his employer refused to pay him; that he destroyed this man's property and stole his watch, was subsequently arrested at Fort Myers, Fla., charged with grand larceny; and that in November 1897, he was sentenced to the reformatory until he should reach the age of 21.

He tells the usual number of stories of cruelties suffered and witnessed in the reformatory, which he aptly terms the "deformatory"; and, in the case of patients whose veracity could be better relied upon, these might be given greater credence. As it is, they are probably mainly true, if occasionally exaggerated, for we have enough similar accounts of conditions existing in southern penal institutions of that early period to know that they were disgraces and abominations, and did far more to contribute to crime than to prevent it.

He says that, following the appointment of a new superintendent, "every boy who could be was sent home, and I was one of those dismissed. . . . I do not remember how old I was when I was released."

Developmental History (continued): The patient declares that he was reunited with his parents, who had moved to Jacksonville, Fla., and that soon thereafter the family returned to Ohio, where he "entered high school and prepared for college." (This is most improbable, for he has said that he left school in the sixth grade, and there is no account of any further education to fill the gap between that grade and high school. He also says, "I left high school at 20 years of age," which is not impossible, but altogether unlikely.)

He then states that his family went back to Jacksonville, where he was again arrested and sent to the reformatory, following an attack on a Negro. His account is full of obvious discrepancies with respect to time and age. He tells at this juncture of the breaking up of his home; of his mother and her second husband and his father and the latter's second wife living in the same house; and of his having sexual relations with his father's second wife, representing himself as a 17-year-old boy, although only a little while before he had described himself as leaving high school in Ohio at the age of 20.

Criminal History (*continued*): Cooksey stole money from his employer's safe; was arrested; jailed; and sentenced to six months in the chain gang. Upon his release, he returned home, obtained a job driving a delivery wagon, collected about $200 on C. O. D. packages, and left town. His next arrest was for shooting a mule, an act which he says was done by a companion and not by himself, but to which he claims to have pleaded guilty in order to save the other fellow from being disgraced. (This is thoroughly inconsistent with what we know of his character.) This time he was given four months on the county road.

His next arrest, according to his narrative, was for carrying concealed weapons, for which he received 60 days on the county road. During this period he says that he had "spasms," which resulted in his being made a water-boy because he was unable to do any heavy work. At this time also he tells of stealing jewelry from two trunks in a farmhouse whose occupants were away, a crime subsequently blamed on his successor on the "water-boy" job, who was flogged for it. When the patient's time was up, he secured the jewelry he had buried and sold it in another town.

He next tells of stealing a roll of bills from the trousers of a man who was asleep on a boat. Most of this money he spent on a woman with whom he was staying.

The next recorded crime is raising a check from $127 to $190 (another version of the same incident says that he raised it to $1,200). With the proceeds of this check he went to Cuba where, some months later, he was arrested and brought back to Key West. While in jail, he got into a fight over the proceedings of the "Kangaroo Court" and was charged with "assault with intent to kill," for which he was sentenced to one year in the county jail. At the end of this period he was tried on the check charge and sentenced

to a year on the turpentine farm. Not long after his release he raised another check, was arrested, and sentenced to 18 months in the state penitentiary. His narrative is interspersed with tales of horrible brutality on the part of guards and superintendents of road gangs, etc.; and, while these may be exaggerated, they undoubtedly do contain a certain amount of truth.

Developmental History (continued): We are now treated to a long and fanciful story of marriage, the birth of two children, and an honest living as a railroad worker, culminating in the sudden and unexplained disappearance of his wife with their two children, following which he "got drunk and joined the U. S. Army." He has written two different versions of this story, and they are indeed about as different as they could be, but both end in the same manner—with the sudden and inexplicable disappearance of his wife and children. It is altogether possible that both accounts are elaborate fantasies.

Inasmuch as this is the first of three marriages described in the course of his narrative, we are disposed to cast doubt on the actuality of any of them. At the time of his admission to St. Elizabeths, he stated that he was married and had two daughters, aged 11 and 14, while one of his marriage stories tells of the birth of two sons. He also told one examining physician that he had two boys, one 14 and the other 11. He said he knew where his wife was; and on one occasion he even addressed a letter to her. She also figured conspicuously in his delusional formation (if he actually had a delusional formation); and no mention is made in the official record of more than one marriage. If, therefore, we are to accept his account of any one of these several marriages as true, we must conclude that the others are the product of imagination or wilful falsification. Throughout the entire narrative we are repeatedly confronted with situations of this kind, and the problem of separating truth from falsehood presents an insurmountable difficulty, as there is no source of outside information by which to check any of his extravagant tales. These can only be checked against internal evidences. There are many times when he apparently simply lets his imagination run away with him, perhaps thinking that he is writing to please the physician and that he might as well put on a good show. At other times it seems as if a certain amount of confusion enters into his composition and that

some of the events he describes are duplications of others, with such variations as occur to him at the time of recital.

Military History: This man's military history is quite as vague and unreliable as anything else, and the balance of his narrative is concerned almost exclusively with events which occurred while he was in the army. He does not tell us when he enlisted, but says that he was dishonorably discharged on January 24, 1917, and that he re-enlisted under another name in April of the same year. This latter statement is obviously incorrect, for, in the interim, according to his story, he served two terms in a state reformatory at Mansfield, Ohio. He has apparently led some of his associates to believe that he saw service overseas in World War I, but the events related in his narrative are confined to Ohio, Texas, and Hawaii; and it was in Hawaii that he committed the crime for which he is serving a life sentence.

Developmental and Criminal History (continued): Cooksey tells us that at Columbus Barracks he had a summary court martial for fornication with the wife of a provost sergeant and was given six months in the guard house. About this time also he relates a homosexual episode of passive fellatio for which he received $10 and which, according to this stage of the narrative, was supposed to have been his first experience of this kind. (A most improbable statement in view of his previous reformatory connections.) He tells of making a girl pregnant, promising to marry her, but instead, securing a transfer to Fort Sam Houston, Texas. Telling of gambling on the way there, he says, "I won everything the soldiers had on the train," and "It was easy to cheat them and at the same time make them think they had a chance to win." We are also treated to accounts of several fights in which, according to him, he always came off the victor. He tells of a protracted affair with a prostitute whom he deceived many times. Then the girl whom he had deserted in Ohio caught up with him, and he claims to have married her and made a home for her and the baby. (This is marriage No. 2.) He tells how her father pursued them and tried to kill him, for which he had him arrested; that her father finally went away and left them alone; that the baby died; and that wife No. 2 then left him in much the same fashion as wife No. 1 is said to have done. His narrative contains an account of his relations with various prostitutes. He speaks of many of the soldiers who "like me, had a regular woman whom they visited, a

woman practising prostitution for money and then giving it to some soldier''; and he adds: ''Some people call such fellows 'pimps.' I don't care what they called them. I was one of them, although I never abused the privilege in any way.''

He tells of robbing a fellow, who ''had a big roll of money,'' in one of these houses, and of living with one prostitute who gave him nearly $3,000, ''all of which I saved, depositing it as she gave it to me.'' He has written more than one account of his relations with some of these women, and, as might be expected, these accounts are entirely different.

Following a scandal in a hotel, for which, of course, he was in no way to blame, ''a summary trial was held at which no sentence was pronounced. Instead, I was put under probation in the prison ward in the hospital, and on January 24, 1917, was discharged as 'not adaptable' to army service, and the clause added that I could not re-enlist.''

He writes of remaining in the town and frequently donning his uniform, which he had retained, and mingling with the soldiers for the purpose of gambling. Following a shooting affair, the details of which are rather indefinite, he was sentenced to 60 days in the county jail. Upon his release, he proceeded to another town, where he had an affair with a woman who outsmarted him and stole his money.

In Columbus, Ohio, which city he reached eventually and where he was reunited with a woman whom he had known in Texas, he robbed a filling station, was subsequently apprehended, pleaded guilty to a charge of grand larceny, and was sentenced to from one to 14 years at the Mansfield, Ohio, State Reformatory, from which he was paroled after 18 months. He now claims to have married the girl with whom he was reunited in Ohio. (This makes marriage No. 3. We never hear anything about any divorces, so if he actually married these three women, he must have committed bigamy at least twice.) Following another robbery, he was returned to the reformatory as a parole violator, but claims to have been released at the end of six months. He says that he then rejoined his wife (wife No. 3) and the scene changes to Pittsburgh, where he went to work for the railroad.

Why he gave up work on the railroad is not at all clear, but he next tells of re-enlisting in the army under his own name (apparently he had used a fictitious one for his first enlistment). It now

appears that his wife has a child, although no previous mention of this fact has been made, and presently he refers to the birth of a second child and tells of buying his wife a house in Los Angeles. The two children are later described as girls. There are continued accounts of gambling. Much space is devoted to his protection of his "buddy" whom he first met during a gambling bout. Questioned about homosexual relations with this boy, the patient said, "I am not that kind and never would be that kind if I had to live a thousand years." (The absurdity of this statement will be apparent when we come to discuss his sex life.) More fights, more affairs with women, another robbery! In Hawaii he also became a boxer. His story of his last boxing bout is tied up with his own peculiar version of the crime for which he is serving a life sentence.

Criminal History (concluded): From the foregoing, it will be readily appreciated that any attempt to separate this patient's personal history from his criminal history, as is customarily done in a study of this kind, would result in a complete disruption of any recognizable continuity. So large a portion of his personal history *is* criminal history that the two are inextricably bound together. We come now, however, to the last criminal episode—the crime of murder for which the patient was sentenced to life imprisonment. Here at least we have an authentic official record, and we also have the patient's narrative account, which is not only diametrically opposed to the known facts but is correspondingly ridiculous. Whether the patient actually believes his own account of the matter is also open to question. Let us first hear the patient's version of what happened in Hawaii, which resulted in his being sent first to the Territorial Prison and then to the Federal Penitentiary at Leavenworth.

"While my 'pal' and I were going from one experience to another, enjoying ourselves, I was doing a little fighting on the side, winning some of my bouts and losing others. About this time several men claimed the heavyweight title for the islands and the real champion was sought. My company commander urged me to get into competition, but, although I weighed 188 pounds, and was in good condition from long training, I declined, informing him that I would not fight a Negro. The best fighter at the time was a Negro who was making a record winning every bout he fought. The time came for a showdown, however, and without taking anyone

else into my confidence, I went to the post commander and asked for 30 days leave of absence to go into secret training to fight the black man who was claiming the heavy-weight champion title of the whole Hawaiian Islands and was due to invade Schofield Barracks to fight all comers."

He gives a long account of a period of secret training for this fight, and a still longer one of the fight itself, which he describes round by round. He concludes his account of the fight and tells of the incident which he claims led to his arrest, as follows:

"Although I was very tired, I was somewhat refreshed when the bell sounded the seventh round. I felt stronger and the encouragement I got from every soldier in the stadium helped me a great deal and I left my corner full of spirit and hope. Meeting the black half way I hit him with a straight to the middle and a cross to the chin. He danced backward and missed a hard right to my head, but I caught him square on the chin with a left hook which sent him to the canvas for a count of eight. He was up again and I missed another hook to the chin as he drove a straight to my middle, but it was just a little short and did me no harm. I got in another left hook to his chin and he went down again for the count of nine. Up again, he missed another left hook to the chin and I drove a right to his head countering with a hard straight to the middle which doubled him up. As he doubled I caught him with a hard left hook flush on the chin, putting him to sleep for the final count of 10, ending the fight. The referee raised my right hand in the center of the ring and that whole stadium went wild. Soldiers climbed through the ropes and I was smothered with congratulations.

"Standing at the side of the ring was a group of blacks who attracted my attention. They were disputing with some white men about the outcome of the fight. One of these big blacks had lost everything he possessed including a large new Packard straight-eight automobile. While my gloves were being taken off I heard this poor loser tell another black that all white men were yellow and could not fight, but were mighty lucky. I was angry anyway and that remark infuriated me. As soon as my gloves were off, I climbed through the ropes and, stepping up to this group of blacks, I asked the man who had made the remark about all white men being yellow, to repeat what he had said if he still thought it true. He started to repeat it, but he never finished because I stopped his

speech with a hard punch right in the left side of his neck. As he dropped to the ground a group of soldiers standing near grabbed me and rushed me to a dressing room. When I was clothed they took me to my company and some of them stayed with me all night. Before morning the report came to us that the black was dead with a broken neck."

He states that late that evening he was arrested, and follows this with a long account of his mistreatment in jail, the attempts made to extort a confession from him, and the wave of racial prejudice which rendered impossible the administration of justice. According to his further narrative, a special grand jury was called and he was indicted for first-degree murder, and he says, "I was sentenced to hang on the conviction of a petit jury in the federal court." He discusses the trial in some detail, with emphasis on the factor of racial prejudice.

Now where does all this come from? His story is too vividly and connectedly told to be pure imagination. Presumably there was a fight; presumably the patient did assault a spectator, who made a derogatory remark; and perhaps he was arrested on account of this and locked up. But the trial which resulted in a conviction for murder in the first degree had no relation whatever to these incidents, as will presently be seen from the official account which follows. There is here a complete *displacement.* As later discussion will show, the patient may really believe this story, having told it over and over to himself until he is virtually convinced of its truth. But let us now see what the events were which actually led to his conviction and imprisonment.

Official Record: An official version is incorporated in a report made to the attorney general by the United States attorney for the district of Hawaii, in connection with an application by the patient for executive clemency. This report reads in part as follows:

"On January 27, 1921, at about 2 a. m., Peter O. Cooksey, who at the time was a soldier in the United States Army, accompanied by one Oscar M. Thompson, 16 years of age—also a soldier—sought to obtain an automobile to take them to Schofield Barracks, an Army Post located about 25 miles from Honolulu, T. H. They found a car at a taxi stand on Hotel Street in Honolulu and engaged the driver to take them to Schofield; the driver first went to a garage to obtain gas and oil and did not have sufficient money to pay for the same. In the front seat of this taxi was a small mir-

ror through which the driver could observe what the occupants of the back seat were doing. Cooksey and Thompson, upon finding that the taxi driver of this car was without funds and that there was a driving mirror in the car, left the taxi. At the garage, Cooksey secured a hammer which he had in his possession when he entered another taxi operated by one George Markham.

"Cooksey and Thompson were then driven to Schofield. Upon arriving there they drove around on a pretext of looking for the 27th Infantry and started across a muddy field where the car stalled. Markham, the driver, got out of the car to determine the trouble; Cooksey also left the taxi and struck the driver on the side of the head with the hammer. After the driver had fallen, Cooksey searched him and took from him a leather pocketbook. He threw the hammer away and the soldiers went to their respective barracks. The taxi driver was found dead about three hours later.

"On March 5, 1921, Peter O. Cooksey was convicted on both counts of the indictment for the murder in the first degree and Oscar M. Thompson was acquitted on both counts.

"On March 9, 1921, Cooksey was sentenced to imprisonment for the period of his natural life, by reason of the recommendation of the jury.

"Cooksey was admitted into Oahu Prison, Territory of Hawaii on March 9, 1921, and was transferred to the Federal Prison at Leavenworth, Kansas, on November 15, 1927.

"Cooksey's application for executive clemency, with letters requesting recommendation for commutation of sentence, addressed to S. C. Huber (District Attorney in 1921), N. D. Godbold (Assistant United States Attorney in 1921, J. J. Smiddy (United States Marshal in 1921) and S. B. D. Wood, United States Attorney at the present time and William B. Lymer, now a Judge of the United States District Court for the Territory of Hawaii, have been transferred by the American Red Cross to the United States Attorney at Honolulu, T. H., asking that the letters be delivered to the above-named men. All men above named, with the exception of S. B. D. Wood, were interviewed and informed of the existence of Cooksey's application for executive clemency and the letters addressed to them. Each man refused to recommend the application for executive clemency and was not interested in receiving the letters which Cooksey had written him. Each and every one of them stated that the murder of George Markham, by Cooksey, was com-

mitted purely for the purpose of robbery and in a cold-blooded manner; that Cooksey had a prior record; was a vicious character; a mental and sexual degenerate and absolutely unfit to be anywhere except in prison for the rest of his life.

"I have also interviewed Edward K. Massee, now a judge of the United States District Court, Territory of Hawaii, who, at the time of the trial and conviction of Cooksey, was Advocate General of the Hawaiian Department and who was thoroughly familiar with the facts of the case. Judge Massee stated that the murder of George Markham was such that both Cooksey and Thompson should have suffered the extreme penalty of the law—death, and that Cooksey was an unfit person to receive clemency of any kind.

"John C. Lane, High Sheriff of the Territory of Hawaii and Warden of Oahu Prison, stated that Cooksey was a mental degenerate and not a fit subject to be any place except in prison; that Cooksey had given them a great deal of trouble while confined in Oahu Prison.

"Deputy High Sheriff N. T. Neilsen, Territory of Hawaii, who has thirty-three years of service in Police and Prison work in the Territory of Hawaii, and who had direct charge of Cooksey while he was confined in Oahu Prison, stated that Cooksey was a 'bad actor'; that he was very glad to see him transferred to Leavenworth, Kansas; that Cooksey was one of the worst men he had ever come in contact with in his years of service; that Cooksey was a sexual pervert and he had difficulty with him every time any young man came into prison.

"Einar S. C. Knudson, Prohibition Agent, Territory of Hawaii, stated that Cooksey's reputation while in the service of the U. S. Army was that of a sexual degenerate and pervert.

"The Parole Report appearing in the Case Record mentions 'smuggling letters out of prison'; 'interfering with guard'; and 'stabbing a fellow prisoner with a knife.' "

And so we have two accounts of a murder, which are just about as different as any two accounts could possibly be. One of them is predicated on official court records and must necessarily be accepted as true, at least insofar as the main facts are concerned. This account does not contain one word about an assault upon a Hawaiian following a prize fight. The patient's account contains not one word about a taxi driver. From a legal point of view, the patient's account, if we had no other, would be thoroughly ques-

tionable, because it is next to impossible to imagine a conviction for first-degree murder growing out of such a set of circumstances as he describes, even allowing for the possible influence of racial feeling and a prejudiced jury. We can only conclude, therefore, that the patient's account must be thrown out altogether insofar as any factual value may be concerned; and this illustrates generally the doubtful value of the patient's account of many other episodes in his history. The man appears to lie from a sheer love of lying; it is extremely doubtful that he is so mentally confused he cannot distinguish between fact and fiction.

III. *Sex Life*

As we have already seen from an outline of the patient's narrative history, his sex life has been characterized by general promiscuity. It covers three marriages, the birth of five children, protracted relations with numerous prostitutes, for some of whom he served as a "pimp," and a variety of casual sexual encounters with women and girls in all sorts of places and under many different circumstances. According to the case record, he denies all homosexual interest, and continues this denial throughout the major portion of his narrative, but finally admits many homosexual experiences and gives a detailed account of some of these. We have also the official statements, already quoted in connection with the denial of his pleas for executive clemency, to the effect that he had a homosexual reputation not only in prison but also in the army.

While it is possible that he has exaggerated his accounts of sexual conquest where women are concerned, there is probably little reason to question his extensive sexual experience.

Masturbation: The official record states: "Asked about masturbation, he smiled again and replied that the examiner should not think that he (the patient) would be such a damned fool as to deny having masturbated, because this is a natural thing and everybody does it. He could not tell when he first started the practice, and does not remember how he learned it—probably it just 'came naturally to him,' he says. He did it with much frequency as a boy, and now 'has not done it since the last time.' More information could not be elicited."

An account of a later interview with the patient contains the following: "As to masturbation, he does not admit practising it

now, but he does not deny it either." In his own narrative, the patient says: "No one ever tried to masturbate me until I was at least six years old. I first learned how it was done when I was visiting an uncle who had a 14-year-old boy. I remember that we went in bathing in a creek. This cousin of mine played with himself and persuaded me to attempt the same thing. When I tried it I thought it felt good so I tried it many times after that."

This is an early age for masturbatory activity, even at the instigation of someone else, and it is quite possible that the patient's memory is faulty where age is concerned. He tells us that after he was able to ejaculate, "I used to masturbate every time I got the chance."

Venereal Infection: The official record states: "He had gonorrhea in 1911 and 1916, and a sore on his penis in 1917 which he says did not last long, as he had a good doctor." An account of a later interview contains the following: "He has had a very promiscuous heterosexual life, and says that he has had many venereal diseases, especially Neisserian infection. He contracted several of them while in Mexico."

In his narrative, the patient tells of having a chancre while in San Antonio following relations with a half-breed Mexican girl, and says: "I was given some medicine to apply, which I used for over a month without any effect." Then he tells how another half-breed Mexican girl treated him with bichloride tablets and cured him in five days. Elsewhere he stated that he had had the "clap" several times, but as he was in the army, he got rid of it quickly. He didn't know how many times he had had it.

Homosexuality: In all official interviews the patient strongly denied any homosexual experience or interest. In his narrative, as we have already seen, he has described what he says was his first homosexual experience—which was supposed to have occurred not long after he had joined the army. Later on, however, he tells about being initiated into homosexual practices at the reformatory in Ohio and describes in detail numerous episodes of both active and passive pedication. In view of the fact that he was previously in a reformatory in Florida, and had also mingled a good deal with sailors and fishermen, it seems altogether unlikely that his first acquaintance with homosexuality took place at this comparatively late date. He also tells of homosexual relations with a young fellow at Columbus Barracks; and, according

to the previous chronology, this would seem to antedate his sentence to the Mansfield reformatory. There is another account of relations with a 17-year-old boy on the ship on the way to Honolulu; and one of relations with "a young kid" in prison (he doesn't say what prison, but apparently it was in Hawaii). Then there follow accounts of similar relations with two other boys, apparently in the same prison.

We have already seen, from the quotations from the official record, that the patient had a homosexual reputation both while he was in the army and while he was in prison.

It would be interesting to know the history of the patient's relations with the young man in whose company he committed the murder for which he is now serving sentence. This boy was only 16. We are half-inclined to suspect that this young man and the "buddy" of the narrative are one and the same person and that the relationship was a homosexual one. Why was this young man acquitted? Did the history of their relationship enter into the consideration of the jury, and was he regarded as the patient's victim rather than his accomplice? The limited data at our disposal at least suggest such a possibility.

Later on in his narrative he admits that his "buddy" was the same fellow in whose company he committed murder, for in connection with his admission to the Territorial Prison in Hawaii, he says: "My 'buddy' had been discharged from the army and sent back to the states. Before he left he came to see me and brought me some sweet cakes to eat. He left the islands the day I was to receive my sentence. For a long time I didn't hear from him or about him. Then one day a fellow prisoner showed me a newspaper article which said my buddy had been arrested in Chicago charged with, tried for, and convicted of, highway robbery. He had been given a 15-year sentence to a state prison. This article also mentioned that he had been tried once in Honolulu on a murder charge as a co-defendant with me."

This statement pretty well gives the lie to the boxing bout story, for if that story were true there would not have been any "co-defendant" involved.

Still later in his narrative, the patient includes a section on "Childhood and Adolescence" from which we learn, as we would expect to, that he was initiated into homosexual practices in the reformatory in Florida, at which time he says he "was about nine

years old." He goes on to describe numerous episodes of pedication and fellatio with the other boys. He also describes a sodomistic relation with a young boy in the county jail at Jacksonville. There follows a detailed description of continued passive fellatio with an old man at Orlando, Fla., and also, while at liberty, a description of a similar relation with a colored boy in Texas.

Referring to masturbatory activity, as well as to homosexual practices, in connection with the reformatory, he says:

"While I was in the reform school I masturbated four to five times a week. And sometimes I masturbated so much that I was too weak to get off of my bed or off the floor if I happened to be lying on the floor when I did it. I have masturbated others, and had others masturbate me. I have jazzed others in the rectum but I was young and innocent when it started, about 10 years old, and I was about 15 years old when I left the reform school."

There is no mention here of fellatio, but we have already seen that this also formed a part of the picture.

Zoöphilia: His narrative contains one account of sexual relations with a mule while he was in the reformatory in Florida. He saw another boy use the mule in this manner, later decided to try it himself, and says that thereafter he did it every time he had occasion to take the mule out.

Sadomasochism: From the long recital of predatory activity, fights, hold-ups, it would certainly seem absurd to suspect any masochistic manifestations on the part of this patient, nor is there anything in his narrative which gives the least indication of such a manifestation. With respect to sadism, however, the official record contains the following:

"When approached on sexual matters again, he became freely talkative and boasted somewhat about his conquering abilities. He always treated women with disdain—just 'meet them, jazz them and leave them' has been his motto. His virility has always been very good.

"He shows definite sadistic tendencies, and brags about 'beating the women up to show your superiority—they like it and stick to you closer when you mistreat them.' He generally beats a woman when he has intercourse (except his wife). About perversions, he says he used to suck their breasts. Asked about cunnilingus he laughs and replies that 'he has done most everything except eat it.'"

In addition to the foregoing, his narrative contains a couple of excerpts which are sadistically colored.

"While I was dancing, Sadie came bursting into the room about two-thirds drunk and using the vilest of language to every one she came in contact with. Coming to me, she began to be disgustingly affectionate. When I attempted to take her up to her room to put her to bed, she turned on me like a wildcat, cursing, scratching and clawing me up. Finally I lost my temper and knocked her down and beat her. Then I left her there and never went back to her again."

The following episodes involve Margaret, another prostitute:

"Margaret was good looking and a genius at making money. She gave me all she made above her room rent, even buying me a big wardrobe trunk and new suits of clothes until I think I had at least a dozen, a handsome diamond ring, and a fine gold watch which cost her $85. We lived together and loved each other for a long time until at last one night I went to the house at my regular time and found her and another woman drunk and fighting. I got into the fight and gave them both a sound thrashing and left. . . . Another time I had a real fight with Margaret in the house where she lived and I beat her very badly and left her crying at about one or two in the morning."

He describes two episodes, both of which involve men. One is an exhibition of revenge and the other of violent temper, but both are sadistically colored. He tells of being on special duty as a provost guard and having assigned to him "the man who had hit me between the eyes from behind the door and had caused me to go to the guardhouse as a prisoner." He says that it was frightfully hot and that "I made the prisoner I disliked go down in that hole (a foundation hole for some boilers which were to be installed) without his pick and shovel and would not allow him to get a drink or remove his heavy shirt." Then he claims that he made a request for the prisoner's transfer because he realized that "my ill-feeling for him prevented my being fair with him." (It is more likely that the request came from the prisoner.)

The second episode involves an encounter with a "stool-pigeon" who was sitting on a wagon and who looked at him sneeringly. He says: "I dragged him off the seat by one leg, and bending him across the wagon tongue, I disfigured his face for life. I am sure his own mother would not have recognized him."

Where does temper leave off and sadism begin? Certainly these episodes suggest a sadistic fury that exceeds the limits of a merely belligerent disposition. The "noble" ending of the first of these two episodes may be discounted, although it is not impossible. It is typical of many more or less similar reactions described by the patient with a view to showing what a good fellow he really is at heart. When we remember the grossly brutal nature of the murder for which he is serving a life sentence, however, it is difficult to accept any of these "noble" accounts as other than passing wish-fulfilling fantasies designed to bolster his insatiable ego.

Heterosexuality: In the light of the developmental history already outlined, complete discussion of the patient's heterosexual life would be sheer repetition. It is, as we have seen, a history of continuous promiscuity. The patient tries to inject emotional overtones into his account of his relations with some of his many women, particularly those whom he claims to have married, but these accounts are no more convincing than are the stories of his three marriages.

According to his narrative, the first woman with whom he had sexual intercourse was a prisoner in a jail in Florida where he was confined following his theft of his employer's watch. He says that he had the freedom of the jail and that this girl, whom he calls Hortense, persuaded him to spend the night with her. "All the time I was sure I was doing wrong and kept warning her of the trouble we would be in if we got caught." But she told him that she had learned to love him and wanted him for her own forever, and he "continued to sleep with her every night for over two months." He says that "Hortense was the first woman with whom I ever had intercourse."

Now the episode itself is entirely plausible, and we have no doubt that he might have slept with Hortense every night for over two months (or until they were caught); but we know quite well from his subsequent admissions that this was not his initial sexual experience and that the "seduction" angle is false.

The next recorded episode concerns a girl whom he met on a train while he was traveling with his mother and the other children, at the time his mother decided to leave her husband. The train was wrecked, resulting in considerable delay. He and the girl wandered into the woods, and he says that when his mother came to look for him, "I was having a fine time for a mother to

catch her son having." But he claims that his mother "just turned her face the other way and did not say a word." If this episode is true—and it sounds likely enough—it would appear to indicate that his mother, by this time, was not a stranger to her son's sexual proclivities or else represented a cultural stratum in which things of this sort were more or less to be expected.

He next tells of having sexual relations with his father's second wife, whom he represents as seducing him, giving the impression that he had previously known nothing about a woman's body, apparently having forgotten his relation of the two preceding episodes.

From here on, there is no point in discussing the patient's heterosexual life, the nature of which is sufficiently apparent from the various episodes indicated in the outline of his personal history.

In a later section of his narrative, however, a sort of appendix, as it were, dealing with "Childhood and Adolescence," he gives the lie to many of the impressions of youthful innocence created by his earlier writing. According to this section, he had repeated sexual relations with a little colored girl when he was 12 years old. Therefore, he was not a stranger to sex when he met Hortense in the jail in Florida before he went to the reformatory, and it wasn't necessary for her to "seduce" him.

IV. *Prison History*

There is no official record of the patient's life as a prisoner, and one must rely upon his own narrative, which is, of course, unreliable. According to it, he was sentenced to hang. How, when, and why this sentence, if this was actually imposed, was commuted to life imprisonment, we do not know.

Hawaii: He tells a long story of inhuman treatment in the Territorial Prison in Hawaii, where, he says, he was kept in a dungeon for "four years and one month" for stabbing a Japanese prisoner. We have already learned from the official record quoted in connection with the account of the murder that he was admitted to Oahu Prison, Territory of Hawaii, on March 9, 1921, and transferred to Leavenworth, Kansas, on November 15, 1927.

According to his own account, the federal superintendent made an inspection of the Territorial Prison but "he did not get a look at me." He claims that a friend told him of the superintendent's

visit and smuggled out a letter to that official, describing the patient's situation; that the superintendent, who was to sail that evening, cancelled his passage, returned to the prison and demanded to see the prisoner whom he had not been told about on his previous visit. He gives a long account of the deplorable condition in which the superintendent found him; of the superintendent's reprimanding the warden and his decision to transfer the prisoner to the states. He says that "this took place in May 1927, but it was November 15 of that year that I left that prison and Honolulu to come to the states."

How much of this is fact and how much of it is fiction? It does not sound like pure fiction, and it probably does contain elements of fact combined with a large amount of exaggeration. All descriptions of cruelty throughout this patient's narrative must be discounted because practically everything that he writes must be discounted. There is little doubt that he was a troublesome prisoner, and it is entirely possible that extreme measures were employed in an attempt to subjugate him. It is entirely possible that these measures did incur the condemnation of the federal inspector, so that the general outline of the events narrated may approximate the truth; but we can also be sure that the patient has dramatized the situation to the fullest extent of his imaginative power and has pictured himself as the victim of unwarranted persecution and of persecution which far exceeded facts in this case.

Leavenworth: He claims that his initial difficulties in Leavenworth came about through a fellow-prisoner, who made repeated homosexual advances to him—which he says he repulsed—and who, when he was "searched for weapons because he had threatened another prisoner, had a note written in my handwriting with a lot of immoral language in it pertaining to sodomy, just as if I had written it, and my name was signed to it."

Now all this sounds like the cart before the horse. How could another prisoner have a note written in the patient's handwriting unless the patient himself had written it? *Who* was "searched for weapons because he had threatened another prisoner"? We strongly suspect that it was the patient himself who was searched and that his own note was found on his own person. Always in his narrative someone else is at fault, and he is the victim of persecution. There is every reason to suppose that it was invariably the other way around.

He tells of being threatened with all kinds of dire punishments by the deputy warden; of attempting to commit suicide by jumping off the gallery; and of being taken to the hospital in straps and put in "the nut ward." He follows this with accounts of interviews with psychiatrists, who accused him of "playing crazy"; of further difficulties with the deputy warden; and of a hunger strike. He concludes this part of his narrative as follows:

"Each day brought me a little nearer St. Elizabeths Hospital. The same psychiatrist came down from Kansas City to examine me and others. As I have said before he was a very nice, tenderhearted fellow. He talked to me very kindly and assured me that he would help me all he could. I was determined that I must get out of the entanglement of trouble I was in for something I did not do, if I had to die trying.

"Dr. John asked me if I wanted to go to St. Elizabeths Hospital for a while in order to completely recover from my disability. I retorted that I did not give a damn if I went to hell, so long as I got out of the difficulty I was in. He assured me that if I would listen to him and do what he told me to do, he would get me out of the trouble I was in and he lived true to his word. He treated me well and I stuck to him and obeyed him in everything he told me to do. The psychiatrist who came examined me five different times and the last time he came he booked me to be sent to St. Elizabeths Hospital in Washington, D. C."

V. *Hospitalization*

The following is a general account of the patient's attitude and behavior during his stay at St. Elizabeths, condensed from the official case record covering that period.

"*Onset of the Psychosis:* There is no account of the beginning of the patient's trouble in prison. The medical certificate states that in May 1928, the patient 'comes in with a wild stare, looks about the room in idiotic fashion, picks at the examiner's clothes, refuses to talk.' There is the further note: 'His behavior and conversation have convinced me that he has a psychosis; he is a dangerous prisoner; complains of pains and headaches; thinks men are climbing into the window of his cell and talking to him; tells about men who put a ladder up to the window and climb up and talk to him; moves his bed many times a day; has no insight and does not want to admit there is anything wrong with him.'

"The patient was transferred to St. Elizabeths Hospital in November 1928.

"*Course of the Psychosis:* On admission patient appeared to be very much confused, said he had been in prison since 1921 but didn't know how much longer he had to serve. He told a tale of a fight resulting from a disagreement following a boxing bout. (Entirely contrary to official information.) When asked if his antagonist died, he answered, 'They say he did,' but then went on to discredit their assertion because he saw this fellow every night and talked with him. He told a story about this man and others, putting ladders against his window and looking in on him, and gave the impression that he was the victim of both auditory and visual hallucinations."

Two days after admission he made an unprovoked attack on two other patients.

During examination he professed not to know the name of the hospital or the names of the doctors. When answering questions, his stream of talk was usually relevant, but when allowed to talk freely he wandered from one subject to another. The ward nurses stated that he talked freely, relevantly and coherently with them, in contrast to his confused manner in the presence of the physicians. Appearing disoriented in front of physicians, he nevertheless wrote letters for another patient in which all details were given correctly. When asked by a nurse to write a letter to his wife, however, he omitted essential details and expressed the same delusions and hallucinations as he had before the physicians. He was impulsive, lost his temper easily, and got into several fights.

"At admission conference he appeared more or less confused. There was often a definite retardation in his replies, but there was also a good deal of emotional tension, particularly in connection with the discussion of matters affecting his own situation. He exhibited no insight, claimed that he was not mentally ill, yet freely described his hallucinatory experiences. He insisted that the man he was supposed to have killed could not be dead because he followed the patient to Leavenworth and also to Washington where he and his brother were constantly appearing and making remarks about him. He also insisted that his wife was in the hospital and that the doctors would not permit him to see her. He left the room uttering remarks about not being permitted to see his wife. There was some discussion about the possibility of malingering, but for

the most part it was considered that he was confused and that his hallucinatory experiences were genuine. Diagnosis: Psychosis with psychopathic personality. Prison psychosis."

In March 1929, one of the physicians incorporated in the record two letters written by the patient as follows:

"Dr. William A. White.

"Sir if you are a friend of mine you will oblige me greatly if you will sent a good detective here to catch these fellows who come around my window at night all hours at night begging me to go for a ride with them. Then when I refuse, they throw a lot of powder through my window which makes me dizzie then they laugh at me when I get sick.

"It's just cornflakes and fine glass cornflakes and fine glass. Please tell me what I have done that anyone would want to poison me. I always thought you was my friend. You would not like it if some one was riding around with your wife and laughing at you like they do me and your babies crying to see you, and some dirty dog keeping them away all the time.

"Tell me why I should be treated in such a way as that.

"Please tell me all about it today when you come around. And make that fellow stop coming to my bed when I am asleep and putting spider-webs in my ears and run out and lock the door.

"Yours truly
"Peter O. Cooksey—H. H. 7.

"St. Elizabeths Hospital
"Washington, D. C.
"2-20-29

"Dear Viola

"What on earth can be the matter with you. Why don't you come on in here to see me and stop running around with them no good fellows. Don't you know that breaks my heart. When you standing out there laughing with that bunch. And as soon as they have you they come right in here and try to poison me and stick a lot of cobwebs in my ears at night and laugh at me. And when I bawl them out they then throw some powder through my window. And it makes me dizzie and sick then the same powder. They put it in my tea and get mad when I won't drink it and you know that is no way to treat me.

"Please answer real soon.
"your loving Husband
"forever. Peter O. Cooksey."

In April another letter was incorporated in the record:

"Dr. L.

"Sir. Can't you help me in some way or other. It seems that I have been through enough hell already and I lay here in pain at night and two or three of those black Hawaiians comes around at my window every night and calls me all manner of vile names, telling what going to do to me when they get their hands on me and they throw kind powder in here on me and it makes me sick and dizy and then they dance up and down and laugh at just like I was a fool or a monkey in a cage and please if you won't let my wife come in here to see me stop her from riding by here and laughing and letting some make my little kids cry. I hear them every night and sometimes in the day. So please do what you can for me and poison I never heard of people wanting to feed a fellow poison who never done no harm to anybody. So help me please.

"Respectfully Peter O. Cooksey."

In a long note in the record in June 1929, a physician stated that although some of the other patients considered this man to be a malingerer, he could see nothing in his expressions which indicated this type of reaction, stating that "he gives expression to a number of peculiarities which are distinctly expressions of psychosis." But the same physician also observed that, following an apparent reaction to hallucination, when another patient would point out to him that the alleged situation did not exist, he would remark that his behavior was "only for attendants' and doctors' benefit." When he heard that a number of patients were being transferred back to prison, he increased his psychotic behavior to such an extent that the physician concluded: "It is quite possible that the man is trying to malinger for the apparent reason that he fears being returned to prison."

The ward notes through the summer and fall of 1930 reported him as sometimes disturbed for several days without apparent cause, cursing, threatening, etc., then as alert and interested, but seeming to show some retardation in thought, frequently losing his temper and cursing other patients. He continued his show of confusion before the physicians, was described as extremely trou-

blesome, and it was stated that "On the whole he is a very dangerous individual, whether he is psychotic or not." The attendants considered him an excellent faker. A later note stated that "he shows no hesitancy in assaulting anyone who attempts to interfere with his actions."

In March 1931, he ostensibly fell in with the suggestion that it might be a good thing to send him back to prison, but immediately thereafter increased his psychotic behavior, and wrote a letter to the superintendent in which he repeated all of his former delusional and hallucinatory ideas. At this time he was regarded as a conscious malingerer, the note stating that "it is believed that at one time he had hallucinations and delusions of the situation psychosis type, but that he now simulates these from memory."

In 1931 the patient appeared in court on a petition for a writ of habeas corpus, as a result of which, in accordance with the hospital's recommendation, he was ordered transferred to the federal penitentiary.

VI. *Emotional Reactions*

How can one evaluate the emotional life of an individual who is such a liar? We cannot rely upon his own description of his emotions, at least not upon those which deal with altruistic or affectionate attitudes, because he so often writes either what he thinks is expected of him or what constitutes a sort of wish-fulfilling fantasy in which he pictures himself as the person he would like to have been or as a person whose imagined attributes are egoistically gratifying. One might almost be safe in saying that all emotional descriptions which belong to the field of the predatory, aggressive and despicable are valid, while all others are false, or at least thoroughly questionable.

Anger: Under the heading "Sadomasochism" in the account of the patient's sex life, we have already seen several examples not only of anger, but of uncontrollable fury; and the official hospital record also attests to frequent outbursts of anger. One might argue that these are a result of his mental condition since his imprisonment and hospitalization, but we have throughout his narrative accounts of innumerable fights, which indicate that a belligerent tendency has always been a prominent feature of his personality make-up. The hospital record states that the patient's brother "describes an incident when the patient was 12, when he

had a fight with a little colored boy, in which he seemed to lose all control of himself and acted like a maniac. He picked up a half-brick and threw it at the colored boy, nearly killing him. From that time on, he displayed an uncontrollable temper and whenever he got into a fight he would use any weapon he could get his hands on and, while not threatening to kill, would probably have killed anyone he fought with, if others had not intervened."

This may be the episode referred to by the patient himself in his narrative, as a result of which he was sent to jail. At any rate, it is typical of his emotional reaction throughout his entire life.

Suicide: There is nothing in the patient's narrative to indicate any suicidal tendency. We have his own statement that he attempted to commit suicide by jumping off the gallery at Leavenworth. We do not know whether this attempt actually took place or whether, if it did, it was genuine and not merely a gesture calculated to bring about some change in his surroundings, as we know it did. It is not impossible that, being unable to vent his fury on anyone else, he turned it upon himself, but it is more likely that the whole scene was staged for an effect, or perhaps didn't happen at all.

Hate: There appears to be little evidence of sustained or enduring hatred. We have examples of revenge, but they are spontaneous and opportunistic; not the result of careful plotting. In an account of one of his interviews with a hospital physician, it is stated that,

"He talked for a long time on the subject of 'hate.' He does not hate anybody. He can knock a man with his fist, as he does not take any 'sh—' from anybody, but right after that he will help the man to get up and give him the last dime he's got."

This statement seems to be substantially in keeping with the patient's character as indicated by his narrative, although it is certainly difficult to picture him giving anybody "the last dime he's got." (He'd be far more likely to take away the last dime the other fellow had.) In a general sense, of course, he is continually suffused with an antisocial hatred; and if one can give even partial credence to his recital of mistreatment in reformatories, chain gangs, convict camps and other penal institutions, it is certainly not surprising that this should be the case. In fact, we cannot see how it could be otherwise.

Love: Did the patient ever love anyone? It is altogether doubtful. He claims to have loved his mother, but his meager statements in this connection sound more like conventional expressions than like those of genuine feeling. Actually, we know nothing about his relations with his mother, and certainly we cannot accept his own account of those relations. The same thing is true respecting each of the three women whom, in his narrative, he says he married. The mysterious disappearance of wives Nos. 1 and 2, as recorded by him, is certainly no argument in favor of his love for them, while he frankly tells of running out on No. 2 after she became pregnant, and it is not likely that his subsequent marriage to her, (if there ever was such a marriage) was entered into willingly. Wife No. 3 is more or less of a mystery, but at least his love for her, if he had any, did not prevent him from engaging in numerous other sexual relationships and did not keep him from engaging in crime.

In his accounts of his homosexual relationships, there are repeated expressions of passionate love, and it seems highly probable that this is the nearest to love that he ever came with anyone; that the only love he has ever known was that of temporary lustful possession; and that no one whom he claims to have loved, either boy, man or woman, represented more than a temporary sexual object. His frank admission that he acted as a "pimp" for a number of prostitutes and his account of the large sums of money that he received from them, pretty well indicate the type of "love" of which he was capable.

Jealousy: His jealousy was undoubtedly tied up with the purely possessive kind of love already referred to. His stabbing of another prisoner seems to have been generally understood as predicated on homosexual jealousy. There is a conspicuous absence of any mention of jealousy where the alleged wives are concerned, and while he professes deep grief over the desertion of two of them, there is no word about being jealous of any other man, even though he attributes the disappearance of wife No. 1 to the influence of another man, whom he nevertheless professes to know nothing about.

Jealousy in his case is simply fury over the encroachment of someone else on his sexual preserves. It is not the jealousy of outraged love, but merely the jealousy of endangered monopoly.

Fear: If we accept the patient's narrative, we would say that he was a fearless individual. There is no mention of fear anywhere in his account of himself; we have only examples of continual belligerency and innumerable fights, in all of which, according to him, he comes out the winner. But his associates insisted that he had a great fear of being returned to Leavenworth; and when we come to consider his dreams, we shall see that they embody a great deal of fear, primarily the fear of death and perhaps the fear of future punishment. His very belligerency may be a conscious means of overcoming unconscious fear, and it is probable that, if we knew the facts in relation to many of the events which he has described, we should find that they, too, involved far more fear than he is willing to admit.

Guilt: We could very well say, "There isn't any," and let it go at that. Certainly, there is no conscious guilt. Nowhere do we find any expression of regret for any of his antisocial behavior; often, on the other hand, he gives us the impression of being very well satisfied with himself after some particularly devilish piece of iniquity. Is there any unconscious guilt? We believe there is some; but it is not expressed as guilt, but rather by a sort of fantasy-formation in which he pictures himself as having been different from what he really was. At no time will his ego permit him to say, "I did wrong"; the utmost it will permit him to do is to paint a false picture of having done right; but his very ability to paint such a picture implies some unconscious recognition of the contrast between it and the far different reality.

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A RATIONAL APPROACH TO PSYCHIATRIC NOSOLOGY*

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A system of diagnostic classification for psychiatry presents basic and irreconcilable differences from one suitable for the balance of medicine. These fundamental discrepancies immediately become apparent when the diagnostic components of any medical or surgical disease are contrasted with those of any functional psychiatric disorder. Cystitis and schizophrenia may be taken as examples.

Medical and surgical diseases, with rare exceptions, lend themselves to the type of approach enunciated by Koch for the establishment of infective disease entities. Scientifically valid transpositions of Koch's postulates applied to the study of obscure medical and surgical diseases continue to be fruitful. Steady gains are constantly reported. The "Koch postulate approach" to functional psychiatric disorders, however, has been consistently and unequivocally sterile. A searching evaluation of method by the psychiatric profession would seem long overdue. It would also seem to be time for specialists in this field to stop their compulsive employment of the inappropriate techniques of the analytical microscopist and accept, with neither shame nor bad conscience, the governing principles of their specialty.

Ease in classification stands in inverse ratio to the number of variables present. Ingots of fine gold may be accurately classified on a basis of weight alone. Oranges may be classified on a basis of weight, size, juice content, appearance and flavor, a decidedly more intricate task. As the number of relevant variables approaches infinity, the trend of classification is toward impossibility. Diagnoses of medical and surgical diseases are intended so to define and limit the conditions that specific statements may be made in regard to therapeutics, prognosis and prevention of the disease entities, irrespective of the individual affected. The number of pertinent variables in functional psychiatric disorders—related to etiology and to symptomatology, both objective and subjective—is so great that diagnosis in any sense comparable to that of cystitis is out of the question. Again, relevant variables are so great

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Cystitis	*Schizophrenia*
1. The affected somatic area is mentioned.	1. No known somatic area is affected.
2. The offending organism(s) is (are) isolated and named.	2. No invading organism is known.
3. The gross and microscopic pathology is indicated.	3. No gross or microscopic pathology is known.
4. The nature and degree of physiologic impairment are noted.	4. There is no known impairment of physiology.
5. The nature and degree of homeostatic interference are indicated.	5. Interference in homeostasis is absent or inconsistent.
6. The impairment of any personality function is irrelevant to the medical diagnosis.	6. Profound impairment of the reality function of the personality indicates the existence of a psychosis.
7. Symptoms are exquisitely specific, uniform in all cases of the disease, and invariably predictable in their entirety on the basis of a complete understanding of the specific physiology and of the pathological involvement.	7. The presence of a loosely organized congeries of symptoms grouped together on the basis of observation and professional experience determines the type of psychosis. Symptoms vary markedly from patient to patient and are never predictable on a basis of the most detailed understanding of physiology and pathology.
8. Definite subgroupings may be established with specific etiology, uniform pathology, and clearly delimited manifestations.	8. Symptom constellations may be separated into large, impermanent, and fluctuating subgroups without specific etiology, or identifiable pathology. Consistent, classical manifestations are not uniformly found in clinical cases.
9. Incidence of the disease is a predictable factor of the interrelation between specific structure, measurable resistance, and identifiable noxae.	9. Incidence of the disease is an unpredictable factor of the interrelation between all potential variables affecting the species and all possible species reactions to exogenous influences.
10. Treatment of the disorder, when known, is clearly defined, specific for the disease, objective in nature, uniform in its results, and readily transmittable as to technique.	10. Treatment of the disorder is eclectic, never clearly defined, usually abstract in nature, variable in its results, and impossible of exact transmission as to technique.
11. Prevention of the disorder when possible is complete and uniform in nature, involving concrete measures exactly calculated to the problem.	11. Prevention of the disorder is never complete, techniques are largely conjectural and empiric, vary markedly in nature, usually do not involve concrete measures, and are never exactly correlated to the problem.

with respect to therapeutics, prognosis and prevention, that specific statements cannot be made concerning any of these equivocal psychiatric "diseases," but can be made only in regard to the individual patient.

Validity in classification stands in direct ratio with:

1. The application of uniform investigative procedures to the individual factor. (Weight, for example, must always be measured under standard conditions of temperature, barometric pressure, etc.). With medical and surgical diseases, uniform investigative procedures may be employed. Accepted techniques of physical diagnosis, established x-ray procedures, identical laboratory investigations and standardized bacteriologic studies, applied to an infinite series of patients, will firmly establish or disprove the presence of pneumococcic consolidation in the right lung. A similar approach to even as objective a psychiatric manifestation as auditory hallucinations is inconceivable in the predictable future.

2. The pertinence of the various factors listed. (Ingots of fine gold could not be validly classified on a basis of whether or not sparrows build nests upon them.) Fever, leucocytosis, pulmonary consolidation and positive bacteriological findings will establish a diagnosis of Pneumococcus Pneumonia, Type IV. A similar series of concrete symptoms and signs for any functional psychiatric disorder is constantly demanded by the medical novice, but, of course, remains unavailable.

3. The presence of identical factors serially repeated in all material tested. (Oranges and gold cannot be classified as like objects on a basis of juice content.) It is axiomatic that identical factors will be serially repeated in all examples of the same medical or surgical disease. Identical factors in series of functional psychiatric disorders do occur, but their enumeration defines exceedingly broad groupings (psychoses, psychoneuroses) and not the ever-smaller and more specific subgroup entities familiar in general medicine. As psychiatric patients are more carefully studied, they are invariably found less appropriate for inclusion in the shrinking pigeonholes of refined classification; their individual peculiarities and unique symptomatology separate them more and more clearly from their fellows; the baffling interplay of etiologic and precipitating factors is seen ever more distinctly as

affecting each individual in a manner never before encountered, and never again to be found. As scientific purists we can, of course, invoke the metaphysical doctrine of eternal recurrence, and qualify our statement by the concept of a universe eventually doomed to cosmic *déjà vu*. What practical application such intellectual web-spinning might have, is obscure.

4. The duplication of findings by all competent investigators employing uniform techniques. (An ingot of fine gold will have the same weight under standard conditions whether the scales are operated by a Chinese or a Norwegian.) The duplication of findings in medical and surgical diseases by all competent investigators employing uniform techniques is to be expected. In the field of functional psychiatric disorders, competent psychiatrists will customarily agree as to the existence or absence of disorder, and will commonly reach an agreement as to whether it is a psychosis or a psychoneurosis. Beyond this point, legitimate variation in their carefully weighed "diagnoses" increases in geometric ratio with the refinement of the "classification."

The internist and the psychiatrist approach the problem of disease from opposite directions. The internist fragments the whole into its constituent parts, identifies the exact area of involvement, isolates the specific cause, and, insofar as circumstances permit, deals with the disorder as an independent fact. The psychiatrist, although he examines the minutiae of his patient's past and present, is constantly attempting to synthesize his growing knowledge into an ever-fuller understanding of the total patient in his relation to an existing society. Innumerable relevant factors are catalogued and weighted. Instead of progressively narrowing his field of inquiry until he has eliminated everything but the smallest possible area of involvement, he is frequently at a loss to find an area free from "involvement," whether it be the sphere of physiologic function or that of economic adaptation. The psychiatrist denies the existence of a unitary etiologic agent and thinks in terms of multiple causes. Lastly he never treats a disease, but invariably an individual patient suffering from a unique disorder of function.

The purposes served by a diagnosis are several. Probably the most important is the transmission of specific, detailed, and, above all, *accurate* information regarding the health of an individual to another physician. A hospital record stating that Mr. Jones suffered from acute B. Coli cystitis on such and such a date leaves

scant occasion for uncertainty. The "diagnosis" of a functional psychiatric disorder disclosed under similar circumstances indicates only that some physician once wrote these words regarding a patient. The "diagnosis" is neither specific nor detailed and has almost no possibility of being accurate.

There is no indication whether the physician believed what he said or made the "diagnosis" only in response to the importunities of the hospital record room, forcing the refractory circumstances of the patient's disorder into the rigid contours of some predetermined "disease" category as best he could.

There is no indication of the physician's competence in the exceedingly complex field of psychiatric evaluation. Where the internist has recognized disease entities, laboratory findings, clear objective signs, uniform and manifest symptomatology to confirm his impressions, the psychiatrist has only the imponderable stuff of conversation, second-hand testimony, professional experience, and shrewd conjecture. Until we are convinced that the reagents are pure and the techniques standardized, we question the reports from a medical laboratory. Until we have personal assurance of the skill of a particular physician, we properly question the accuracy of his psychiatric opinions.

There is no possibility of obtaining from the stilted and impersonal phraseology of the "diagnosis" an understanding of the real nature of the patient's disorder; the tortuous interconnections of genetic, environmental, and constitutional factors in etiology; the masked and involute expressions of his illness; the maze of hints, inferences, opinions, and guesses that were delicately weighed and sorted into a prognostic "yes" or "no."

Another purpose to which diagnoses have been put is the accumulation of impressive statistics regarding disease entities, their incidence, prevalence, morbidity rates, etc. Information gleaned from these studies has been of such great significance in epidemiology and public health that methods for standardized reporting and stacks of punch cards have taken on a certain sacrosanct validity in themselves. A statement that "statistics show . . ." is still the quickest way to terminate many discussions, even among the allegedly scientific. There is, unhappily, nothing of witchcraft about statistics, and the IBM machines give little promise of producing significant facts when they are fed only fantasies. The

fantasy of specific, uniform and clearly outlined *disease entities* dies hard in psychiatric circles.

For some obscure reason, the psychiatrist feels compelled to answer the statistician's demands for subtler diagnoses, better diagnoses and, above all, for more diagnoses. He has the uneasy feeling that if he only tries a little harder, works a little longer, looks a little closer, or best of all, refines some new "test" to a more discriminating point he will, at last, become a respectable associate of his scientific brothers, always ready with their many neat diagnostic packets. Like the Roman with his clumsy system of alphabetical numeration, he wastes his time in futile efforts to manipulate his material by a method unsuited to his purpose. One would hardly care to defend the thesis that the psychiatrist's remotest function was to distort his findings so that they could be readily processed by familiar statistical techniques.

Should the statisticians develop a procedure that would unerringly deliver a punch card coded with the full and scientifically valid "diagnosis" of every registered Republican in the United States, they might then hopefully turn to the more difficult task of diagnostically classifying the many patients suffering from functional psychiatric disorders. Nor can we accept statistics reporting on the number of blue-eyed, bald-headed Republicans with one gold tooth. Our statisticians' cards must clearly define Republicanism in its every gradation, indicate unequivocally those areas of the affected individual which are Republican and which are tinged, ever so faintly, with the signs of the Democrat. We must see in an instant all the intricate causes of his Republicanism and at a glance digest both the manifest and the occult evidences of its presence.

A third justification frequently advanced for the development of highly refined systems of diagnostic classification is their research value. There is, no doubt, an emotional gratification in being able to ascertain at will the precise number of 14-year-old school boys in the United States who are suffering from auricular fibrillation of rheumatic etiology. The mere existence of these precise and tidy files does not, however, advance the science of medicine in the slightest. Good cooks are not created by providing every housewife with a perfectly-ordered pantry. Accurate classification does afford the highly skilled research worker with a helpful tool; but what if he mistakes the appearance of precision

for the fact, what if he accepts a specious semblance of accuracy for dependable truth?

The folly of taking any detailed diagnosis of functional psychiatric disorder seriously was dramatically highlighted during the recent war when catatonic schizophrenia became hysterical aphonia during a short ambulance trip between hospitals, when psychoneurotic anxiety was metamorphosed into constitutional psycopathy during a ship's journey from Southampton to New York.

It was easy to say that the earnest young medical officers conscientiously attempting to apply the gleanings of their 90-day courses in psychiatry were unable to fit the exotic "new" diseases into the dusty confines of an outdated and inadequate nomenclature. It was easy to feel that remedial action consisted in the creation of bagfuls of pristine, streamlined pigeonholes all designed with the New Look. The solution of the whole difficulty was thought to lie in more precise refinements, more card-indexed hair-splittings, more and more diagnoses.

But now, even the IBM machines might be expected to display a certain metallic anxiety, for a review of the record of Private Jones, successively transferred among four large hospitals fully accredited by the military, contains no less than four distinct functional "diagnoses." There is every reason to believe that no error was made in Private Jones' identity since the same serial number appears with monotonous regularity on each record. There is also good reason to believe that he has not, in rapid succession, suffered from four distinct psychiatric "diseases," since the whole period of his hospitalization has been short, and even more convincingly, because of the striking uniformity between the various narrative reports submitted by his physicians. All agree he is sick, all agree his disorder is psychoneurotic in nature, but beyond this point none are able to settle upon the particular cubicle into which he should be crowded. There always seem to be a few tatters of hysteria coming out of this corner, a large bulge of native inadequacy distorting the far wall, an irritating seepage of anxiety from beneath the door.

Suspecting that some psychiatrists were lazy fellows given to a great deal of loose thinking and determined to avoid, whenever possible, an examination of the details of their patients' lives, it was also felt necessary to establish a sort of ghostly records room supervisor who would demand through the exasperating effront-

ery of the printed word, that all psychiatrists bestir themselves and write in their "diagnoses" the severity of the disease, its manifestations, the external precipitating stress, the patient's premorbid personality, and the degree of his resulting incapacity. The all-revealing telegram had been expanded into a day letter but, as was to be expected, it still failed to define either a disease process or a specific patient.

It is entirely possible for an internist to prescribe effectively for a patient—knowing nothing but his diagnosis. A psychiatrist discovered in such an act should be sued and convicted of malpractice. What value these meticulously chiseled psychiatric "diagnoses" might have for a sincere and honest research worker dealing with the stuff of psychiatry and not with its effluvia remains puzzling.

Medicine during the Middle Ages abounded with precise diagnoses based in considerable measure on the humoral theory. Patients were phlegmatic, choleric, and sanguine. Much was made of the color of the bile. There were countless subdivisions of the fevers and of the rheums. The dialectic temper of the times, that found expression in fine-spun anatomizations of the state of grace, spent itself in the creation of infinitely complex classifications of disease, which, at the first breath of scientific appraisal, tumbled into Limbo. No one had questioned the existence of these "diseases" individually or collectively. As soon as the patient was properly categorized, the physician's curiosity was satisfied. He prescribed a suitable combination of clysters, blood lettings, and fumigants, and regarded his responsibility as at an end.

The advent of the scientific era had little effect on this all-too-human tendency to "diagnose." The quest for certainty stemmed much too directly from powerful unconscious drives. The satisfactions of prestige remained far too attractive, the tinsel of seeming omniscience too desirable. How shamefully medical science has been retarded by this tenebrous lethargy of the intellect, what penalties have been exacted from unnumbered generations of patients by this induced paralysis of the mind, are inquiries for the philosopher.

Procedures of investigation, classification, and modification of material in such fields as psychology, sociology, education, philosophy, cultural anthropology, economics, politics, and history have, within the framework of their respective disciplines, an order of

scientific validity no less accepted than the equations of the mathematician and the formulae of the research chemist. The universality of the scientific *method* does not and never has meant that the same scientific *technique* has universal applicability.

Psychiatry shares with medicine and surgery a basic preoccupation with disease, and with the perspective and the social sciences an equally fundamental preoccupation with man as a unitary social being.

Only the scientist can say: "Your naïve demands cannot be fulfilled. These are the metes and bounds of my knowledge. Importunities will not persuade me to distort what facts I have to satisfy your mistaken preconceptions. I prefer to be constantly reminded of my ignorance than to harvest the bitter rewards of a fallacious certainty."

Only the psychiatrist can say: "I have found no disease entities that do not afflict the body. The distinctive disorders with which I peculiarly deal are cunningly interwoven with the unique personalities of my patients, with the singular circumstances of their individual lives. If you would understand the manifestations of these strange disorders, I must tell you all I know of each individual lest your intelligence be insulted and my interest betrayed. We may differ in conclusions, for the intricacy of our study is great, the contributions of our professional experience significant. I can make plain to you how a handful of similarities are shared by many patients as serpents share their scales or deer their hooves, and we may agree to name such groups. We have understood that in so doing no disease has been defined, no patient described."

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THE PHYSIOLOGY OF HYPNOSIS. I.*

A Review of the Literature

BY BERNARD E. GORTON

Introduction

This paper purposes to discuss the physiological aspects of the hypnotic state, and to examine the physiological changes transcending ordinary voluntary capacity which can be produced through hypnotic suggestion. Hypnosis may be defined as an artificially-induced state characterized by heightened suggestibility, as a result of which certain sensory, motor, and memory abnormalities may be induced more readily than in the normal state. Hypnosis is induced by means of appropriate verbal suggestions. There will be no discussion here of the twilight states of consciousness resulting from the action of such drugs as the barbiturates. A review of the history, technic of induction, and the phenomena of hypnosis lies outside the scope of this paper; excellent reviews of these subjects are available, and the reader is referred to them.**

Hypnosis is essentially a psychosomatic phenomenon, that is, it involves the close interaction of factors which are ordinarily dichotomized into "physiological" and "psychological" categories. This distinction is permissible as a matter of convenience only, and it must be realized at the outset that such an artificial division does violence to the concept of the unity of the organism which is fundamental to sound thinking not only in medicine but in all the biological sciences. This orientation along psychobiological lines is particularly essential in the study of the higher functions of the human nervous system, and it has been well stated by Liddell that

*This is Part I of a two-part paper on the physiology of hypnosis. It includes an introduction to the subject; notes on theories of hypnosis and on methodological problems during experiment; and discussion of the electroencephalogram, metabolism, respiration, circulation, vasomotor activity, and hematological changes during hypnosis. Part II will cover the physiology of the gastro-intestinal system, kidney function, muscular activity and reflex activity during hypnosis; pharmacological aspects of hypnosis; hypnotic anesthesia; hypnosis in psychosomatic research; physiological changes associated with hypnotic age-regression; a general conclusion; and an extensive bibliography. Part II will be published in the July 1949 issue of The Psychiatric Quarterly.

**The best short discussion of hypnotism readily available is that of Jenness (1944). Hull's monograph (1933) is a milestone in the history of experimental hypnosis. The recent two volumes by Wolberg (1948) are unexcelled as an authoritative reference on all medical aspects of hypnosis.

"Our understanding of the nervous system will speedily increase when both physiologist and psychologist acquire, through practice, facility in ignoring the imaginary barrier between the two sciences."*

The study of the physiology of hypnosis involves problems not ordinarily encountered by the physiologist, and the methodological difficulties that have to be mastered in order to obtain significant and reliable data are considerable. Much of the early work in the field of hypnosis was done by clinicians unwilling or unable to apply rigorous scientific controls to their investigations. It was not until Clark Hull published his epoch-making monograph in 1933 that the study of hypnosis became scientifically respectable in this country. It is well to note that much of the pioneering work on the physiological and clinical aspects of hypnosis was done in Germany and Austria; this is in keeping with the fact that the majority of references cited in Dunbar's survey (1935) of the literature on psychosomatic interrelationships is in German. Workers in this country appear to have been reluctant to make use of a technic which is still unfortunately associated in the minds of many with stage magicians and side-shows.

Lately there have been encouraging signs of a reviving interest in the clinical and experimental use of hypnosis. It is not improbable that the publication of Wolberg's recent (1948) two volumes on *Medical Hypnosis* will mark a change of medical opinion in this country from a blend of suspicion and ignorance to a mature appreciation of the advantages of hypnosis. It is to be hoped that the future will see an increasing use of hypnosis in basic physiological studies of psychosomatic problems; it is to the end of furthering an intelligent understanding of the physiology of hypnosis and its potentialities in physiological research that this paper is dedicated.

Theories of Hypnosis

At present there is no physiological theory available which accounts satisfactorily for the phenomena encountered in the hypnotic state. This is hardly surprising in view of our ignorance regarding the nature of the physiological mechanisms associated with the cortical functions of learning, memory, language, and related symbolic processes. It is interesting to note, parenthetically, that the psychologists have been no more successful in dealing

*Fulton (1943, p. 510).

with hypnosis from a theoretical standpoint than have their physiological colleagues. Hull (1933) has attempted to account for the hypersuggestibility observed in hypnosis on the basis of a "habit hypothesis." Other authors have attempted to deal, more or less unsuccessfully, with the crucial question of why the hypnotized individual acts the way he does, but an adequate explanation still remains to be proposed.*

The only physiological theory which can make any claim to being comprehensive, that of Pavlov, has definitely been shown to be untenable. It is discussed here mainly because it embodies a large number of fallacies which are still frequently encountered in the literature, and because it is an excellent example of the fatal results which occur when theoretical concepts having little or no experimental basis are applied indiscriminately to "explain" a set of facts. Pavlov was firmly convinced that "inhibition," ordinary sleep, and hypnosis are one and the same process:

"Inhibition is partial sleep, or sleep distributed in localized parts, forced into narrow limits; true sleep is a diffused and continuous inhibition of the whole of the hemispheres . . . From this point of view the phenomenon of hypnosis may be easily understood. It represents one of the different steps in the process of irradiation over the mass of hemispheres—the partial sleep of the hemispheres."**

Elsewhere, Pavlov (1923) states that "hypnosis is inhibition spread over the usually active points in special areas of the great hemispheres." It is remarkable how little such writers as Altshuler (1927), Biermann (1929), and Stockert (1930) have added to the fundamental concepts of Pavlov cited here. Even if Pavlov's idea of "inhibition radiating over the great hemispheres" had not been shown to be fallacious (Hilgard and Marquis, 1940), the "facts" upon which he bases his theory of hypnosis are frequently in error. In the first place, hypnosis and sleep are now definitely known not to be identical so that the concept of hypnosis as "partial sleep" is false. Pavlov follows the opinion of earlier authors who consider the phenomenon of tonic immobility encountered in animals ("animal hypnosis") to be related to hypnosis in the human subject. This view is based upon the mistaken

*For the psychological status of hypnosis, the reader should consult the reviews of P. C. Young (1926, 1931, 1941).

**Cited by Hull (1933, p. 210).

notion that catalepsy forms an integral part of the hypnotic state. Hull (1933) has shown that catalepsy may be readily induced in the waking state and he observes:

"Catalepsy is never observed in the writer's laboratory unless specific instruction is given that it will take place. By this criterion, touching the end of the nose with the tip of the right index finger might also be regarded as a symptom of hypnosis as such, since in the hypnotic state it also can be induced quite as readily as catalepsy. Moreover, catalepsy can be induced with remarkable readiness in subjects in the normal waking condition previous to the giving of any other suggestions whatever."*

Similar arguments may be applied to the contention that *rapport* is a special feature of the hypnotic state. Hull points out that rapport is actually a form of selective anesthesia, and thus does not differ fundamentally from the other forms of anesthesia which may be obtained if suggested by direct or indirect means.

Not only do we find that Pavlov's theory of hypnosis is contrary to the experimentally-established facts, but it is actually based upon neurophysiological conceptions such as the "irradiation of inhibition over the great hemispheres" which can hardly be regarded as adding to our knowledge of the fundamental problems involved. It may safely be concluded that a theory of hypnosis which can account satisfactorily for the experimentally-determined facts will have to await the formulation of a general theory of the psycho-physiological correlations of higher cortical function, an event hardly to be expected within the near future.

Methodological Problems in Experiments Involving Hypnosis

Research in the field of hypnosis has been beset with a number of special problems not usually encountered by the physiologist. The induction of hypnosis involves an intimate interpersonal relationship between operator and subject that is not capable of easy standardization. All subjects do not behave alike in the hypnotic state, and much depends upon the operator's skill as far as the depth of trance produced is concerned. We do not possess any objective somatic criteria of hypnosis, and the depth of hypnosis which can be achieved varies considerably in different subjects. A number of authors have described scales designed to measure the depth, but no general agreement has been reached concerning

*Hull, *op. cit.*, p. 211.

the standardization of such a scale.* The factor of operator skill is an important one in inducing maximum depth of hypnosis in a given subject, and it is probable that many of the contradictory results in the literature are to be ascribed to the variation in the susceptibility of different subjects and the ability of different operators to induce maximal depth of trance.

The lack of waking-control experiments in much of the literature on hypnosis has been criticized by Hull, and waking controls are indeed indispensable in any study which purports to determine the effectiveness of hypnotic suggestion in bringing about physiological changes as compared with the effects of suggestion in the waking state. Yet this simple precaution has been omitted by numerous investigators whose results have been invalidated thereby. Many of the earlier investigators failed to introduce controls designed to test whether the subject is in the hypnotic state or whether he has fallen asleep. Accordingly, many findings which supposedly show certain phenomena to be identical in sleep and hypnosis actually merely demonstrate that the subject has fallen asleep because of the neglect of the experimenter to guard against this occurrence. Unless some such precaution as that used by Bass (1931) in his classical demonstration of the integrity of the knee jerk during hypnosis (the knee jerk is abolished by sleep) is employed, an experiment involving the use of hypnosis cannot be regarded as satisfactory.

That the mode of induction of hypnosis may affect the experimental results is indicated by the work of Davis and Kantor (1935) who found a significant difference to exist in the skin resistance during "active" and "passive" hypnotic states. They found that the skin resistance during the lethargic state of hypnosis resembled that of sleep, while the resistance during the active condition resembled that found in the waking state. Quite as important as control experiments in the waking state are controls in the hypnotic state without the giving of suggestions designed to produce the effect being studied. Luckhardt and Johnston (1924) found that the induction of hypnosis *per se* was capable of causing a rise in gastric secretion; this rise was clearly noticeable on the secretion curves obtained by earlier investigators who were, however, unaware of the true nature of the phenomenon.

*A number of such scales are discussed by Jenness (1944).

In studying the effect of emotions upon physiological processes in the hypnotic state the question of presenting emotionally equivalent stimuli to different subjects is a difficult one. Dunbar has justly pointed out that, strictly speaking, there is no such thing as an emotionally neutral stimulus. Rather frequently, the stimuli required to bring about a maximal emotional response in a given subject are highly individual and personally determined, and vary widely from those effective in a different subject. It is obvious that the suggestion "Your pancreas will secrete insulin and your blood sugar will fall" (employed by a number of investigators who wished to influence blood sugar by hypnotic suggestion) is highly ineffective, and the suggestion of a strong emotional experience having a personal meaning to the subject will produce results quite different from those obtained with the suggestion just mentioned. Dunbar comments on this matter as follows:

". . . Grafe realized that psychic factors were responsible for some of his negative results. Negative results in hypnotic experiments are to be ascribed only too often to faulty technique, that is, to lack of judgment in the choice of suggestions. Probably no one has had wider experience with hypnosis in psychosomatic research than G. R. Heyer who says, 'It is essential that the suggestion be adapted to the individual. The key must fit the keyhole in order really to open the door into the inner world. . . .' "*

To summarize, the methodological problems involved in the use of hypnosis are considerable and account for much of the contradictions to be found in the literature. If the effects of hypnosis are to be investigated, it is essential that hypnosis and *not* sleep be studied, and suitable precautions are necessary to that end. It is highly desirable to standardize the method of induction of hypnosis, preferably by a period of training following which hypnosis may be induced at a prearranged signal by the operator. Controls are necessary both in the waking state and in the trance in order to establish that the effect under investigation is actually due to hypnotic suggestion and not to other secondary factors. In studying the effects of emotions suggested under hypnosis, care must be taken that the emotional stimuli are effective and adapted to the subject. It is highly desirable to estimate the depth of hypnosis quantitatively, using one or the other of the available scales, and it is never permissible to assume that the hypnotic group is

*Dunbar (1935, p. 172 n).

homogenous as to hypnotizability or that hypnosis is an absolute state without variations. Hull (1933) has drawn attention to the fact that hypnosis is a habit phenomenon and that the phenomenon of substitution of stimulus is responsible for many motor responses which may have been acquired without the knowledge of the subject and serve to confuse the meaning of results. Thorough training in experimental human behavior is necessary for success in the field of experimental hypnosis, and the following words of Binet and Fere (*Animal Magnetism,* 1888) are still highly appropriate:

"The study of hypnotism bristles with difficulties, although this has never occurred to the numerous persons who have expected to find in these questions the occasion of a brilliant and easy success. Although nothing is more simple than the invention of dramatic experiments, which strike the vulgar with fear and astonishment, it is on the other hand very difficult, in many cases, to find the true formula of the experiment which will give its results with convincing accuracy."*

The Electroencephalogram in Hypnosis

Ever since Berger first reported his now classical work on the cortical electro-activity in man, physiologists and psychologists have attempted to discover the correlation between the electroencephalogram and various normal and abnormal functional states of the cerebral cortex. The fact of primary importance which the study of the electroencephalogram has disclosed is that the electrical activity of the cerebral cortex is the same in hypnosis as it is in the waking state, and that it differs from that which is observed during sleep. The electroencephalogram therefore provides a readily available means of distinguishing hypnosis from sleep. This is of considerable importance since most of the older authorities on the subject believed hypnosis and sleep to be identical states from a physiological standpoint.** While the experimental evidence is overwhelmingly in favor of the thesis that sleep and hypnosis are *not* identical, many authors still subscribe to the older view that hypnosis and sleep are the same, or closely allied, conditions. This latter opinion forms the basis of Pavlov's

*Cited in Hull (1933, p. vii).

**A good review of the conflicting opinions concerning the identity of sleep and hypnosis is found in Hull (1933).

theory of hypnosis which is widely held by the Russian and German reflexologists, and which is also shared by such American investigators as Kubie and Margolin (1944). We are fortunate in possessing an instrument such as the electroencephalograph which makes possible an objective differentiation between sleep and hypnosis.

Loomis, Harvey, and Hobart (1936a, 1936b) first reported that cortical electro-activity, as measured with the electroencephalograph, was identical in the waking state and hypnosis. Using a single subject who was capable of being placed in deep hypnosis, these authors found that "the trains characteristic of a person awake remained at all times during hypnosis and no spindles or random waves (characteristic of normal sleep) appeared during any of the tests." This finding was confirmed by Blake and Gerard (1937) who state that in their experimental subject "a good 10/second rhythm was normally present and persisted, sometimes with diminished amplitude, throughout the hypnotic period. A 14/second rhythm was observed, but the very slow waves of sleep were never definitely indicated." Sirna (1945) could find no significant electroencephalographic changes on the cortical level during normal daydreams, hypnotically-induced daydreams, and hypnosis itself, and he concludes that his results confirm the work of Loomis, et al.

More recently, Dynes (1947) has made careful studies, on five subjects, of the electroencephalogram in the waking state, hypnosis, and sleep. His criteria for deep hypnosis included post-hypnotic amnesia, hypnotically induced anesthesia, and the carrying out of post-hypnotic suggestions. Dynes concludes that "there is no evidence that the cortical electrical activity, as shown in the electroencephalogram, was altered, either at the time of induction of the trance or later when the patient was in deep trance." Of special interest is an electroencephalographic tracing reproduced in the original report which shows the brain waves recorded from a subject who had been trained to enter the trance state almost instantaneously at a prearranged signal by the operator. No essential change in the electroencephalogram is discernible before, during, or after the induction of hypnosis which, judging from the time signal on the record, took place in approximately three seconds. Ford and Yeager (1948) reach the same conclusion in a study involving eight subjects: "Hypnosis, *per se*, does not affect

the cortico-electrical physiology as recorded by the electroencephalograph. . . ." These authors further note that ". . . changes in the emotional state of some subjects through hypnosis can modify the electrical activity."

A more controversial aspect of the electroencephalogram in hypnosis is the effect which hypnotically-induced modifications of seeing and hearing (auditory and visual hallucinations produced under hypnosis) exert on cortical electro-activity. It is well known that opening of the eyes in a bright room immediately abolishes the alpha rhythm of the electroencephalogram, and that the latter reappears promptly when the subject closes his eyes. Loomis et al. found that they were able to cause the alpha waves to reappear by the suggestion of blindness in a subject whose eyes had been taped open.

On the other hand, it was never possible to start "trains" in a non-hypnotized subject by suggesting blindness to him while his eyes were open in a lighted room. These studies by Loomis and his associates would seem to indicate that hypnotically-induced blindness is successful in producing electroencephalographic changes which cannot be brought about by waking suggestion.

The results of Loomis et al. could not be repeated in experiments done by Lundholm and Löwenbach (1942-43). These authors concluded from a series of experiments involving three subjects that: "Hypnotically suggested light does not produce the abolition of the alpha rhythm, nor does suggested blindness prevent it. . . . The findings in these experiments tend to convince us that cortical electroactivity is not affected by hypnotic modification of seeing and hearing." Lundholm and Löwenbach cite the work of Lemere (1942) with hysterically-blind persons in support of their findings. Lemere found that several hysterically-blind subjects showed no alpha waves when their eyes were open, but that the rhythm returned promptly when they closed their eyes. A hysterically-blind individual, examined by Lundholm and Löwenbach, who was later relieved by hypnosis, exhibited the same behavior reported in Lemere's patients, and these authors conclude, "We are unable satisfactorily to account for the discrepancy between our results and those of Loomis, Harvey, and Hobart." Ford and Yeager (1948) confirm the findings of Lundholm and Löwenbach in a study in which they induced hypnotic

blindness in three subjects and were unable to produce a change of electro-cortical activity.

Electroencephalographic changes produced through hypnotic age-regression are reported by Kupper (1945). This author describes the case of a 24-year-old maritime service trainee who was hospitalized in December 1943 following a convulsive seizure with tonic and clonic movements. A history of similar attacks dated back to 1938 when the initial convulsive attacks had occurred and "diffuse abnormalities on the EEG indicative of a convulsive disorder" had been noted. In December 1943 similar diffuse cortical irregularities were noted electroencephalographically. Under hypnosis it was disclosed that the first convulsive attack of the patient had occurred in 1938 under psychologically traumatic circumstances. The patient was then regressed while under hypnosis to his twelfth birthday and serial EEGs were taken. The EEGs proved to be within "normal limits" from the twelfth birthday through succeeding years up to the patient's eighteenth year in 1938, following the first attack. Then diffuse cortical abnormalities occurred. "By suggestion the patient was placed in the situation prior to the initial attack. . . . More irregularities, abnormalities and slight spiking occurred. The record was then changed within normal limits by reassuring the patient and the series repeated. *A convulsive seizure was produced and stopped while under hypnosis on suggestion of the examiner.*"

In summarizing the effects of hypnosis upon cortical electroactivity, it appears definitely established that the electroencephalogram under standard conditions is identical in hypnosis and the waking state. The weight of evidence at present favors the view that hypnotic modifications of hearing and seeing are not capable of influencing the normal electroencephalogram. The work of Ford and Yeager (1948) indicates that emotional changes produced during hypnosis are capable of bringing about changes in the EEG. This is in accordance with the views of Davis and Davis (1939) who conclude that "the psychological 'set' . . . is as important in determining modifications of the alpha rhythm as is the background of proprioceptive impulses in determining spinal reflexes." Thus it would seem that changes in the EEG due to emotional influences are demonstrable in both the waking and the hypnotic state. Kupper's (1945) demonstration of profound alterations in the EEG during hypnotic age-regression leaves little

doubt that it is possible to produce and to abolish at will pathologic electroencephalographic changes in a suitable subject by means of hypnotic suggestion.

Metabolism in Hypnosis

Since it is well established that the basal rate of metabolism is decreased by some 10 per cent during sleep, it is apparent that a comparison of the metabolic activity during hypnosis and the waking state should furnish a clue concerning the identity or non-identity of the two conditions. Goldwyn (1930) has investigated this problem by comparing the basal metabolism of 18 normal subjects while awake and while under hypnosis. He was careful to induce a maximum state of mental and physical relaxation in his subjects under hypnosis before proceeding with the taking of the BMR; and, in general, he attempted to keep the experimental conditions identical in his two series of determinations. This author found that hypnosis in every case reduced the BMR, as determined in the waking state, the average reduction being 3.88 per cent. Goldwyn concluded that a decrease in basal metabolism is associated with the induction of hypnosis. This finding has been challenged by the work of Whitehorn, Lundholm, and Benedict (1932) who carried out a similar investigation and took the added precaution of training their subjects over a period of days before taking the waking BMR. Whitehorn and his associates found that several days of training in relaxation were necessary before true "basal" values could be obtained, and they comment that "if we had not avoided this source of error [i. e., failure to train their subjects for the BMR determinations] we might have been led to agree with Goldwyn." Using their more refined technic these authors could find no decrease in BMR under hypnosis, and they conclude that hypnosis probably helps to bring an untrained subject more readily into the "basal" condition than does simple training (which accounts for the difference in their findings and those of Goldwyn). The studies of Whitehorn et al. are the best ones available on the metabolic rate during hypnosis, and they indicate that no such decrease in the BMR as occurs during sleep takes place in the hypnotic state, providing precautions have been taken to ensure complete relaxation of the subject while the wak-

ing BMR is being determined.* Grassheim and Wittkower (1931) and Fulde (1937) similarly found that the BMR is not significantly affected by the induction of hypnosis.

That strong emotions are capable of increasing the metabolic rate appears to be generally recognized at present,** but the fact that data obtained by means of experiments utilizing hypnotic suggestion is available to substantiate this viewpoint is not so well known. The pioneering work in this field has been done by Grafe and his associates in Germany where so much of the basic research on the psychosomatic interrelationships which can be demonstrated by means of hypnosis has been carried out. Grafe and Traumann (1920) investigated the effect of hypnotic suggestions of emotional depression and heavy muscular work on metabolism in two subjects. In one case an increase from 6 to 12 per cent in the metabolic rate was noted following suggestions of depressing emotions, but no appreciable changes were observed in the other subject under similar conditions. In a series of experiments involving 10 subjects Grafe and Mayer (1923) studied the effects of suggesting various pleasant or unpleasant stimuli, including such calamities as the amputation of arms, deaths of relatives, and fights with cannibals. In six subjects there was a distinct rise of metabolic rate (ranging from 8 to 25 per cent), in one subject only a slight rise, and in another no change following the suggestion of unpleasant emotions. Two subjects who received pleasant suggestions showed only a slight increase in the metabolic rate. Grafe concluded that emotions may cause a distinct increase in metabolism, and that emotions producing sorrow are more effective in that respect than those producing joy. Fulde (1937) states that suggested excitement causes increased pulmonary ventilation, oxygen consumption, and CO_2 production.

A careful study by Whitehorn, Lundholm, and Gardner (1929-1930) confirms the foregoing findings in their essentials. These authors used the technic of post-hypnotic suggestion to induce various moods in a normal subject; the efficacy of these suggestions was tested by having the subject write out retrospective ac-

*That hypnosis is capable of bringing an untrained subject more readily into the "basal condition" than simple training, is explained by Whitehorn et al. as being due to the efficacy of hypnosis, as compared with ordinary reassurance, in overcoming the subject's anxiety.

**Best and Taylor (1945, p. 537) state that "*Strong emotions* may raise the basal metabolism from 5 to 10 per cent above the basal level."

counts of his feelings: Moods were suggested, instead of the more ambiguous instructions given by Grafe et al, in order to control the emotional variable more closely. Following a series of 20 experiments, which included BMR determinations during waking, hypnosis, and post-hypnotically suggested moods, these authors conclude: "The mood of anxiety or apprehension . . . can increase the metabolic rate. Moods of depression, of elation, and of irritability have not . . . produced any certain increase in metabolic rate."

The studies which have been summarized provide an experimental basis for the common clinical observation that worry and anxiety frequently lead to loss of weight—it being recognized, of course, that an increase in metabolism may not be the only factor involved in such a situation. Whether the rise in metabolic activity which accompanies an emotion such as anxiety is due to a general increase in muscular tension is not yet clear, but the studies of Jacobson and others lend considerable weight to such a supposition.*

The effectiveness of hypnotic suggestions of muscular work in increasing metabolic activity and pulmonary ventilation has been reported on by a number of Russian investigators. Nemtzova and Schattenstein (1936a) found that suggestions of work affected pulmonary ventilation and oxygen consumption as follows:

	Pulmonary ventilation L/min.	Oxygen consumption cc/min.
Hypnosis (resting)	4.35	177
Hypnotic suggestions of light work...	11.27	320
Hypnotic suggestions of heavy work...	14.5	409

The same authors also report (1936b) that when subjects, who were lifting weights rhythmically, received suggestions that the weights were lighter, pulmonary ventilation and metabolism diminished 20 to 30 per cent; suggestions that the weights were heavier caused an increase in metabolism of 30 to 50 per cent.** Levin and Ego-

*For a review of the literature concerning the muscular hypertension associated with various emotional states the reader should consult Dunbar's review (1935).

**These articles were seen only in abstract and the present author is therefore unable to evaluate the significance of these data, which are presented for whatever they may be worth.

linsky (1936) found that the most pronounced effect of hypnosis was the change in pulmonary ventilation when resting subjects were given suggestions of work (the ventilation equalling that of actual work). Oxygen consumption and ventilation were found to be unchanged when suggestions of rest were impressed on working subjects.

The inability of hypnotic suggestions to counteract certain normal physiological processes is well illustrated by the work of Grassheim and Wittkower (1931) who wished to see whether the specific dynamic action of protein could be reproduced by suggesting the intake of protein. A series of studies involving 20 subjects who received, under hypnosis, test meals containing protein showed that a typical specific dynamic action curve was obtained under these conditions. A test meal which was followed by suggestive removal yielded a typical specific dynamic action, even though the subjects felt hunger afterward. Non-protein test meals accompanied by suggestions of the intake of protein did not result in a specific dynamic action, and the authors conclude that the specific dynamic action of protein is not reproducible by means of hypnotic suggestion.

Reports of "hysterical fever" have appeared in the literature and have aroused interest in the extent to which the heat-regulating mechanisms of the body may be affected by "psychic" processes. Eichelberg (1921) reports a case of hysterical fever for which no organic basis could be found; he found it possible to remove the fever through hypnotic suggestion (a drop from 38.7 to 36.9°C). By means of hypnotic suggestion, changes of rectal temperature from 37.0 to 38.9°C could be obtained within 10 minutes, but no waking control experiments appear to have been carried out with this patient. A more elaborate study of the effect of hypnotic suggestions on temperature regulation is that of Gessler and Hansen (1927). BMR determinations were made on a naked subject lying in a room which was cooled or heated to specific temperatures and the increase or decrease in oxygen consumption noted. The data which were available to the present author (the article was seen in abstract) did not appear to justify the conclusion of the authors that the effects of the normal physiological heat-regulating mechanisms could be counteracted by hypnotic suggestion, especially since only one subject seems to have been used. The influence of hypnotic suggestion on the heat-regulating mech-

anism cannot be considered as having been established, and further experimentation is required to settle this question conclusively.

Respiration in Hypnosis

There is much disagreement in the literature concerning respiration in the hypnotic state. Many earlier investigators such as Walden (1900-1901) report a slowing in the respiratory rate, as does also Zynkin (1930), while others find variable figures. The early literature is reviewed by Jenness and Wible (1937) who have performed the best controlled experiments on this subject. These authors compared hypnosis, not only with the waking state, but also with normal sleep. In sleep they occasionally noted periodic respirations of the Cheyne-Stokes type, but never in the waking state or in hypnosis. Jenness and Wible concluded that hypnosis is identical with the normal waking state as far as respiration is concerned. In noting the apparent disagreement between their findings and those of other investigators, who report a slowing of respiration in hypnosis, they point out that this may be due to the fact that these other workers studied sleep instead of hypnosis, since they took no precautions to prevent their subjects from passing from hypnosis into sleep.

A considerable body of evidence exists which indicates that respiration can be powerfully influenced by hypnotic suggestions. In the section of this paper dealing with hypnotic anesthesia a summary will be found of the studies which have shown that the normal changes in respiration which accompany painful stimuli are capable of being inhibited by hypnotically-induced anesthesia. A number of Russian investigators have found that suggestions of work can increase pulmonary ventilation considerably. Nemtzova and Schattenstein (1936a) were able by suggestions of light work to increase a resting ventilation of 4.35 liters per minutes to 11.27 liters/min. Suggestions of heavy work resulted in a pulmonary ventilation of 14.5 liters/min.* Astruck (1923) also reports that respiratory activities may be influenced under deep hypnosis, but details of his work were not available to the present writer.

An interesting study of the effect of hypnotic suggestion upon hysterical hyperventilation and the resulting acid-base changes is

*Further details of these and related studies are found in the section of this paper dealing with "Metabolism in Hypnosis."

available in the work of Cohen and Cobb (1939) who report the case of a patient showing tetany and hyperventilation at the rate of 140 per minute. Suggestion to the patient that she "breathe slowly" resulted in the changes in respiration, pH and pCO_2 tabulated herewith.

Observation of Arterial Blood of Patient with Hysterical Hyperventilation Before and After Hypnotic Suggestion*

Hypnotic study number	Date and time	Respiration	pHs	pCO_2
1	2:30 p. m. before April 20	62	7.44	15.5
	4:30 p. m. After	20	7.34	27.3
2	2:10 p. m. Before April 23	132	7.52	22.6
	4:05	18	7.35	33.2
3	10:20 a. m. Before April 28	110	7.61	15.9
	11:50 a. m. After	20	7.46	27.7
	1:00 p. m. Before	18	7.38	36.5

*Cohen and Cobb (1939, p. 335), data as given: Respiration/min.; pCO_2 in mm. of Hg; and serum pH.

According to the authors, the pCO_2 of 15.9 mm. Hg. and the serum pH of 7.61 are values which represent "variations from the normal as extreme as have ever been observed in human beings."** When the values had dropped to normal levels within an hour, a carpal spasm resulting from tetany had disappeared. Cohen and Cobb further report that it was always possible to restore the patient's breathing to a normal rate and rhythm by suggestion, and that by post-hypnotic suggestion the breathing remained normal for an hour or more after hypnosis. It is important to note that under waking suggestion the patient "would sometimes respond a bit, sometimes not at all, but the response was not very marked." In this experiment we have good evidence that "objectively demonstrable changes" were produced in the patient's blood by hypnotic suggestion.

It is appropriate here to note the relationship which appears to exist among hyperventilation, alkalosis and hypnotizability. Cohen and Cobb report that "the ease with which the patient fell into

**A detailed biochemical study of this patient was made by Talbott, Cobb, Coombs, Cohen and Consolazio (1938).

hypnosis perhaps was related to the hyperventilation or the alkalosis or both." Sargant and Fraser (1938) state that overventilation results in the induction of a supersuggestible state in neurotics, and Seeligmuller (1934) has drawn attention to the same fact which has also been noted by Talbott, et al. (1938). Stockert (1930) has speculated that the alkalosis resulting from hyperventilation causes a vagotonic action which in turn promotes "hypnotic sleep." This author, unfortunately, fails to distinguish between hypnosis and ordinary sleep in his discussion. At present, as Cohen and Cobb point out, conclusive data showing that hyperventilation or alkalosis causes subjects to pass more easily into hypnosis is not available. These authors state that "The final demonstration of this must include a rather definite technique for hypnosis, a measure of the relative amount of ventilation, chemical determination of blood CO_2 and pH and a rather clearcut description of the 'depth of hypnosis.'" It will be recognized that this last demand for adequate criteria concerning depth of hypnosis is precisely one of the factors which has impeded research in this field. Moreover, because of the practice effect resulting from repeated hypnosis, which results in hypnotic induction becoming easier after each successive attempt, it would be difficult to demonstrate the hypothetical increase in hypnotizability resulting from alkalosis. That is, even if an increased case of hypnotizability could be shown to result from hyperventilation, it would be difficult to determine whether this was due to an alkalosis alone or whether it was merely due to the practice effect. It is conceivable, however, that a correlation might be established between the degree of alkalosis and the degree of suggestibility in the waking state. Such a study would provide a clue to the problem of the nature of the physiological basis for hypnosis.

Circulation in Hypnosis

Reviews of the literature on circulation in hypnosis by Kleitman (1939) and Jenness and Wible (1937) indicate that the findings of various earlier investigators concerning the activity of the circulatory system in hypnosis are conflicting in nature. Much of this early work can be subjected to criticism on various methodological grounds and is therefore not considered here. The best studies on this subject are those by Jenness and Wible (Jenness and Wible, 1937; Wible and Jenness, 1936) who used the electro-

cardiograph to measure heart action in sleep and hypnosis.* Their data show cardiac activity to be identical in hypnosis and the waking state, sleep being found to lower it considerably. Whitehorn et al. (1932) noted a slight lowering in the heart rate in the trance as compared with the non-trance state, and this observation was made by several other investigators. It is probable that this lowering is due to the complete relaxation obtained with hypnosis (which has also been found to lower BMR values very slightly). The view of Jenness and Wible that hypnosis *per se* does not bring about any significant changes in cardiac activity is in harmony with all the other evidence pointing toward the physiological identity of hypnosis with the waking state and can therefore be accepted as describing the true state of affairs.

Nygard (1939) has made a study of the cerebral circulation prevailing during sleep and hypnosis. He could find no changes in the cerebral circulation during hypnosis, and the pulse could not be distinguished from a corresponding waking period in amplitude, form of pulse wave, or volume. In sleep, on the other hand, the blood volume increased and the pulse became more pronounced. During this study, depth of hypnosis was tested with post-hypnotic amnesia and hypnotically-induced hallucinations.

The ability of emotional changes produced under hypnosis to influence the heart rate is well established by such studies as those of Deutsch and Kauf (1923).** Whitehorn (1939) found that in one subject in whom anxiety was hypnotically induced on signal the heart rate showed an 80 per cent acceleration within the minute following the signal. Whether cardiac activity can be accelerated or slowed by direct hypnotic suggestion ("Your heart is beating fast, etc.") is still an open question. Jenness and Wible (1937) definitely state that the heart rate could not be accelerated by direct suggestion to that effect. Others such as Wilson (1927) and Astruck (1923) have claimed success in obtaining acceleration of the heart rate, but it is not clear whether they accomplished this by direct suggestions alone or whether suggestions of an emotional nature were involved.

*Schneck (1947) comments on the clinical advantages of electrocardiography under hypnosis.

**Reviewed in detail in the section of this paper dealing with "Hypnosis in Psychosomatic Research."

Vasomotor Activity in Hypnosis

Investigations of vasomotor conditions in the hypnotic state have been made by a number of workers who have attempted to demonstrate that the tone of the peripheral circulation is under the direct control of the cortical centers which are presumably active during the process of hypnosis. Walden (1900-1901), using the plethysomographic method, found the arm volume to be variable but generally characterized by vasoconstriction in the hypnotic state. This study can be criticized on the grounds that, since the experimental sessions with a single subject lasted for several hours at a time, and since no precautions were taken to prevent the subject from passing from hypnosis into sleep, the results cannot be accepted as valid. We possess evidence in the work of Doupe, Miller and Keller (1939) that the state of the peripheral circulation is not significantly altered by the induction of hypnosis. These authors were able to record changes in digit volume photographically, and their results are satisfactory from the point of view of instrumentation and statistical reliability. Nygard's (1939) observations that the cerebral circulation is identical in the waking state and in hypnosis lends support to the findings of Doupe et al. that the induction of hypnosis is not associated with vascular changes.

The effect of hypnotic suggestions on the peripheral circulation was studied by Talbert, Ready, and Kuhlmann (1924) who found that "suggestion of cold invariably produces constriction of the arm." Suggestions of heat were not so predictable in their effect. This investigation is marred by a lack of quantitative data and a failure to carry out control observations in the waking state. In a careful study Doupe, Miller, and Keller (1939) found no evidence that suggestions of warmth or cooling could modify the existing state of the digital circulation. At no time did sweating or flushing occur, although these were strongly suggested. These authors noted that the suggestion of cold caused a *transient* vasoconstriction which could also be produced by the suggestion of a painful stimulus. The findings of these authors are at variance with the results reported by Gessler and Hansen (1927) who claimed to be able to influence the metabolic rate of a subject exposed to various changes in temperature by means of hypnotic suggestion.* While the work of Doupe and his associates is by no means to be

*For details of this experiment, consult the section of this paper dealing with "Metabolism in Hypnosis."

regarded as the final word on this problem, the present author does not know of any study which convincingly demonstrates that peripheral vasomotor activity is capable of being influenced by direct hypnotic suggestion.

The most controversial topic in the literature on the physiological changes which can be produced by means of hypnotic suggestion is that concerning the production of blisters. Pattie (1941) has reviewed the literature on this subject and finds that in the last 55 years there have been only 10 articles written in which investigators have reported the formation of blisters and have given a reasonably full account of their procedure and control of the subject. While it is true that much of the literature reviewed by Pattie consists of clinical case histories which are often anecdotal in character and deficient in rigorous experimental controls, Pattie's attitude of "suspended judgment" is difficult to comprehend in view of reports like those of Hadfield (1917) and Heller and Schultz (1909). To cite merely one example: In his second experiment with Leading Seaman "P.," Hadfield was never personally left alone with the patient; the patient was never left alone and Hadfield never touched the arm of the patinet, this being done by another surgeon present while Hadfield made verbal suggestions. The patient was watched continuously during the 24 hours following hypnosis while his arm was bound in a sealed bandage which was opened in the presence of three surgeons. On the spot that had been touched there was found the beginning of a blister, which gradually developed during the day to form a large area of inflammation. Pattie concludes: "The writer, [Pattie] after all this evidence, still finds himself in an attitude of suspended judgment, an attitude due mostly to his inability to understand by what physiological processes suggestion—or the central nervous system—could produce localized and circumscribed erythemas or blisters." While we must agree with Pattie that more refined experimentation is required to dispel the doubts concerning this fundamental problem of hypnosis, we do not feel that ignorance of the mechanisms involved in the production of blisters by hypnotic suggestion justifies his skepticism.*

*Pattie's attitude is typical of many academicians who find themselves unable to acknowledge the existence of phenomena which have not been demonstrated in the laboratory. The present author feels that case reports such as those of Ullman (1947) are not invalidated by the fact that strict experimental controls were not possible under the circumstances, and that it is more desirable to study important problems with inadequate methods than to leave them uninvestigated because one cannot understand the processes involved.

A closely related problem is the influence of hypnotic suggestion on allergic manifestations. Hansen (1927) states that it is well known that asthmatic attacks may be interrupted by means of hypnotic suggestion, and that it is even possible to terminate status asthmaticus. This author reports some experiences of his own with a patient who was allergic to horse dander. Every contact with horses, even the most casual contact on the streets, precipitated an asthmatic attack. Skin tests showed that out of 30 allergens tested only that of horse dander caused a strong positive reaction. After several hypnotic sessions, during which the patient practised deep breathing, it was found that exposure to horse dander did not produce an asthmatic attack. The intradermal skin test for horse dander, however, remained strongly positive. After citing another similar case, Hansen concludes that even though it does not seem possible to change the allergic constitution of the asthmatic, it is possible to reduce the sensitivity of the allergic individual to certain allergens by means of hypnosis.

Similar findings are reported by Wittkower and Petow (1931-32) who were unable to eliminate a demonstrable allergic skin response by means of hypnotic suggestion. They found that suggestion given to a patient that the odor of roses was particularly harmful to her resulted in a conditioned response so that the slightest odor of roses, the presence of a paper rose, or even the idea of roses nearby was sufficient to provoke an asthmatic attack. This patient's skin test for rose extract remained negative even after several weeks of training. Clarkson (1937) claims to have been able to suppress the wheal resulting from a strong cutaneous reaction to an intradermal test for egg sensitization in an asthmatic girl. Zeller (1944) attempted to reproduce the effects obtained by Clarkson and obtained negative results in tests on five patients.

The best quantitative investigation of the influence of hypnotic suggestion on allergic reactions is that of Diehl and Heinichen (1931). These authors employed three subjects and gave them intradermal injections of various allergens. The injections were made on the anterior abdominal wall and especial care was taken to distribute the patch tests in a symmetrical manner and to control all extraneous factors. Using these precautions, a control series was made and the variation in the area of the patch tests produced under identical conditions was found to be plus or minus 15 per cent. The technic employed for measuring the size of the in-

tradermal reaction consisted in outlining the patches by means of a skin pencil after a standard waiting period of 30 minutes, tracing them on transparent paper, and then measuring the area. Using this technic Diehl and Heinichen performed six experiments, four skin tests being carried out during each in the waking and hypnotic state respectively (total of eight skin tests per experiment). After a waking control series the intradermal injections were repeated under hypnosis with suggestions of either increased or decreased itching, burning and degree of development of the skin patches. In five out of six experiments positive or negative changes in skin patch size (according to suggestions given) ranging from 28 to 81 per cent above or below the controls were obtained.* The authors conclude that it is possible to influence the extent of an allergic cutaneous reaction by means of hypnotic suggestion, but they are careful to point out that it was possible to exert only a *quantitative* and not a *qualitative* effect upon the allergic manifestions. Diehl and Heinichen stress the fact that their experimental conditions were not conducive to a maximum effect upon the allergic reactions since suggestions of itching, burning, etc., do not have as strong a psychic effect as the emotional stimuli which are ordinarily effective in precipitating or influencing allergic reactions in patients.

An experiment which clearly demonstrates the importance of the subject's emotional state in influencing the production of blisters under hypnosis is that performed by Heilig and Hoff (1928). These authors used three psychopathic women with previous histories of herpes labialis as subjects. The presence of the herpes virus in the naso-pharynx of these individuals was established by inoculating rabbit corneas with nasal washings, and the opsonic index for B. coli, streptococcus and staphylococcus was determined. Under deep hypnosis the subjects were told that they were undergoing an extemely unpleasant emotional experience (suggestion of particular experience was adapted to the history of the individual concerned and calculated to produce a maximum of emotional upset) and this was accompanied by suggestions that blisters would form on the lower lip, that the lip was itching, etc.,

*The authors failed to compute a mean percentage change for all their data. Inspection of the original figures shows the average positive or negative percentage change to be around 40 per cent.

while the operator actually stroked the subject's lip. In all three subjects herpetic blisters were found to occur after a lapse of several days, and inoculation of the fluid content of the blisters into rabbit corneas was employed to establish the character of the lesions. Heilig and Hoff state emphatically that pure suggestion, however direct and pressing, was not successful in producing herpes unless unpleasant emotional suggestions were made at the same time. Following the production of herpes labialis the opsonic indices were found to be lowered as compared with the determinations made previous to the experiment. It is not clear whether the suggestion of unpleasant emotions, psychic traumata, etc., in the waking state would have been capable of precipitating an attack of herpes. The authors describe the reactions of the subjects to the suggested experiences as being extremely vivid, accompanied by crying and strong emotional outbursts, and it may be reasonably doubted that such results could have been obtained in the waking state.*

In summarizing the effect of hypnotic suggestion on vasomotor phenomena and related conditions, it appears well established that the condition of the peripheral vasculature does not differ significantly in hypnosis and the normal waking state. It has not been shown to date that hypnotic suggestion of heat or cold influences vasomotor activity significantly. A considerable literature exists on the production of blisters by means of hypnotic suggestion, but we do not as yet possess a well-controlled laboratory investigation concerning this important subject. It is the opinion of the present author that the available evidence indicates that blisters can be produced by means of hypnotic suggestion. The work on the influence of hypnotic suggestion on allergic manifestations shows that such reactions can be influenced in a quantitative manner but that qualitative changes in the direction of altering constitutionally-present factors are not possible. The study by Heilig and Hoff on the experimental production of herpes labialis blisters shows that emotions induced by means of hypnotic suggestions are capable of producing changes of a pathological nature which can-

*The subject's reactions, as described by Heilig and Hoff, are best characterized as resembling those which are obtained by narcosynthesis with sodium pentothal or in similar states produced through hypnotic suggestion and which are not encountered in the waking condition.

not be produced by direct suggestion under hypnosis.* We may conclude, therefore, that vasomotor phenomena may be influenced quantitatively through hypnotic suggestions. The weight of the evidence indicates that a quantitative influence on vasomotor and allied phenomena is possible by means of hypnosis in suitable subjects; the extent of this influence and the factors which enter into it are not well understood and, like so many aspects of hypnosis, will have to be elucidated by future investigations.

Hematological Changes in Hypnosis

A comprehensive comparative study of the blood picture in sleep and hypnosis has not been undertaken to date. Since Kleitmann in his authoritative volume (1939, p. 61) on sleep expresses the opinion that "nearly all the changes in the composition of the blood during sleep are explainable by the effect of alteration in posture," the value of such a study in helping to settle the sleep vs. hypnosis controversy is doubtful. Isolated observations are available, however, which indicate that the blood picture in hypnosis is essentially that which is found in the waking state. Goldwyn (1930) could find no significant difference in the blood count or chemistry in hypnosis as compared with the waking state. Wittkower (1929) confirms this observation insofar as the leukocyte count is concerned.** What little evidence is available, then, points toward the identity of hypnosis and the waking state, as considered from the hematological standpoint.

The influence of emotions on the blood sugar level under normal conditions and in such states as diabetes mellitus is well known, and the classical work of Cannon on the influence of the autonomic nervous system under conditions of "fear, flight, and rage" has led to a renewed interest in this problem.† Accordingly, attempts have not been wanting to demonstrate that the blood glucose level is capable of being influenced by hypnotic suggestion. Mohr (1925) reports curing a case of glycosuria by means of hypno-therapy;

*Dunbar (1933) has justly pointed out that there is, strictly speaking, no such thing as a suggestion devoid of emotional content. For a discussion of this problem, the reader is referred to the section of this paper dealing with "Methodological Problems in Experiments Involving Hypnosis."

**This author also finds that certain emotions are capable of producing a leukocytosis which is observed in the waking state, hypnosis, and post-hypnotically suggested emotional states ("affective leukocytosis").

†Dunbar's monograph (1935) contains a review of the literature on this subject.

the hypnotic suggestions were designed to relieve the patient of his "affective excitability." After the glycosuria had been eliminated, it was found possible to reproduce it by suggesting to the patient that he would have an emotional upset. Marcus and Sahlgren (1925) were unable to prevent an increase in blood sugar following the ingestion of 100 gm. of glucose by suggesting that this was water. Likewise, it was not possible to produce an increase in blood sugar by the suggestion that the subject was drinking sugar-solution instead of the water which he actually received. These authors claim, however, to have succeeded in counteracting the effects of injected adrenalin and insulin on blood sugar by appropriate suggestions. Gigon, Aigner, and Brauch (1926) performed experiments on four diabetics in which they report a decrease in blood sugar following the suggestions that "the pancreas would secrete insulin, and that blood and urine sugar would markedly decrease." All these studies are characterized by a lack of adequate control experiments and an insufficiency of quantitative data. The work of Stein (1929) is rather typical in that respect. She performed experiments on three normal and six diabetic subjects who were given in hypnosis the suggestion that the pancreas would secrete more or less insulin and that the blood sugar would rise or fall. It is reported that suggestion of increase of sugar in the normal subjects was effective in all cases, but controls under hypnosis without such suggestions seem to have been omitted. Fifty-six hypnotic treatments in the diabetic individuals resulted in a definite decrease of blood sugar 47 times, a minimal decrease four times, and no decrease five times. The urine sugar decreased 23 times in 29 experiments. In one single (!) control experiment with hypnosis and no suggestion, both blood and urine sugar decreased. Quite obviously, these results, in the absence of adequate controls and statistical treatment of the data, are meaningless and without value. Similar criticisms apply to the researches of Povorinskij and Finne (1930) who comment that hematological changes might be only secondary to cardiac and respiratory changes induced by the emotional content of the hypnotic process. They therefore attempted to eliminate affects by using only the suggestion of the taste of sugar which they considered to be a neutral stimulus, and to standardize the induction of hypnosis as much as possible. The original paper (containing blood sugar curves) was not available to the present author, but Povorinskij

and Finne's results may be summarized as follows: 1. The blood sugar level can be increased by the suggested idea of the intake of a large amount of sugar or honey. The normal hyperglycemia resulting from the ingestion of sugar can be inhibited by suggesting the absence of sugar in an actually sweet solution. 2. The hypnotic state *per se* tends to lower blood sugar content. 3. In hypersuggestible individuals, blood sugar changes may be produced in the waking state.

Without a precise knowledge of the number of subjects employed in this study and the quality of the data obtained it is impossible to evaluate these conclusions. They are presented here primarily to indicate the controversial character of the problem involved.

An agreeable contrast to the literature just cited is provided by the work of Nielsen and Geert-Jörgensen (1928) which is characterized by adequate controls, duplicate analyses of blood sugars, and sufficient quantitative data to make possible an elimination of chance factors. Six normal, fasting subjects were placed in deep hypnosis (as tested by hypnotic anesthesia, gustatory hallucinations induced by suggestion, and similarly-produced changes in respiration). The subjects were given water to drink accompanied by suggestions that this was a sugar solution, and in several cases these suggestions resulted in hallucinations on the parts of the subjects that they were actually drinking sweet liquids as evidenced by licking of the lips, swallowing, etc. In the case of one subject, shock due to injury was suggested, suggestions of a rise in blood sugar being given at the same time while the subject writhed in imaginary pain and cried out. Duplicate analyses of blood sugar failed to reveal any significant changes due to the suggestions given in hypnosis as compared with a control series during which no suggestions were given. This experiment by Nielsen and Geert-Jörgensen is the best controlled study of the influence of hypnotic suggestion on the blood sugar level and it indicates that direct suggestion is not capable of producing changes in blood sugar. The results of Nielsen and Geert-Jörgensen however, do not necessarily contradict Mohr's report (1925) that suggestions of an emotional character may result in changes of blood sugar. It is very well possible that suggestions of appropriate emotional states may result in corresponding blood sugar changes. Such changes would have to be compared with those obtainable by wak-

ing suggestion in order to determine whether hypnosis is capable of affecting such a process to a significant extent.

A topic which has received the attention of several investigators is the effect of hypnotically-induced emotional states on the blood calcium level. Glaser (1924) showed that by suggestive influences, in the direction of "quieting," the calcium content of the blood of a nervous patient could be reduced from 10.56 to 8.40 mg. per cent. By artificially exciting the patient one day and suggestively quieting her the next day these variations could be increased to a difference of 3.53 mg. per cent. Povorinskij and Mjassiszew (1926) similarly observed lowering of the serum calcium under the influence of various emotions and of fear. The findings of Glaser were confirmed by Kretschmer and Kruger (1927) who noted that in three cases showing *abnormal* blood calcium content it was possible to increase the calcium level by suggested excitement and to decrease it by quieting suggestions. Five patients in whom the blood calcium was *normal* could not, however, be influenced by suggestions. Kretschmer and Kruger conclude that the calcium content of the blood can be influenced by hypnosis only when it is already altered or unstable. Schazillo and Abramov (1928) studied the K/Ca ratio and found it to be relatively constant during hypnosis. These authors found that hypnosis influences the potassium and calcium level of the blood in neurotics.

The present author is not in a position to evaluate the findings cited, since these articles were not seen in the original. The studies on blood calcium reveal that almost all the instances where changes were effected through hypnotic suggestion occurred in "nervous" or "neurotic" individuals in whom the calcium level was already abnormal or unstable. Unless data is available to indicate the changes that might have been expected to occur in the absence of hypnotic suggestion, all reports of artificial changes in the blood calcium level must be regarded with extreme caution. In the absence of adequate control observations, we must conclude that a suggestive influence on serum electrolytes has not been satisfactorily demonstrated as yet.*

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*Stein (1929), who has claimed success in influencing blood sugar levels by means of hypnotic suggestion, reports that she could obtain no significant changes in blood and urine sodium and chloride levels.

A STATISTICAL ANALYSIS OF THE AGES OF FIRST ADMISSIONS TO HOSPITALS FOR MENTAL DISEASE IN NEW YORK STATE

BY BENJAMIN MALZBERG, Ph.D.

The probability of a mental disorder, as measured by rates of first admissions to hospitals for mental disease, varies according to age in a characteristic manner.[1] The rate (or probability) of such disorder is low in childhood and adolescence, rises rapidly during early maturity, rises at a less rapid rate during the involutional period, and continues to rise very rapidly through old age.

It is of interest to note that this trend was not always recognized. Dr. Benjamin Rush, one of the earliest writers on mental disease in the United States, believed that there was a greater disposition to mental disorders between 20 and 50 years than in any other age group.[2] Esquirol undoubtedly confused absolute numbers with rates, and placed the maximum liability at from 30 to 40 years among men, and at from 50 to 60 years among women.[3] The subject is referred to at length in the United States Census for 1860.[4] There again the liability to mental disorder was placed at a maximum in maturity, and it was said to decrease in old age. Furthermore, this census report quotes from many early writers, including Dr. Pliny Earle and Dr. Thomas S. Kirkbride. The former placed the maximum rate at from 30 to 40 years, the latter at 20 to 30 years. Undoubtedly these errors were due to limited sampling, the patients representing admissions to single institutions, with consequent errors in determining the proper general population to be used as a base in calculating rates. Twenty years after the 1860 census another writer went even further, and denied that the true rate of mental disease showed any fluctuations with age. To him the "liability to insanity strictly belonging to each age is extremely uniform throughout the whole of life."[5] It was not until statistics of patients with mental disorder were developed consistently upon state-wide bases that it became possible to dissipate such erroneous views.

The present study of the age characteristics of first admissions with mental disorders is based upon an analysis of such admissions to all state and licensed hospitals for mental disease in New York State during the three fiscal years 1939-1941, inclusive. Appropriate comparisons are made with the two preceding decades. During the three years ended June 30, 1941, there were 46,633 first

admissions to the state and licensed hospitals, of whom 24,431, or 52.4 per cent, were males, and 22,202, or 47.6 per cent, females.

Table 1 shows the distribution of these 46,633 first admissions according to major groups of mental disorders. It may be noted that dementia præcox, the largest group, included 11,304 first admissions, or 24.2 per cent. Psychoses with cerebral arteriosclero-

Table 1. First Admissions to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Principal Groups of Mental Disorders

Mental disorders	Number			Per cent		
	Males	Females	Total	Males	Females	Total
General paresis	2,158	695	2,853	8.8	3.1	6.1
Alcoholic	2,587	545	3,132	10.6	2.4	6.7
With cerebral arteriosclerosis	4,509	3,857	8,366	18.5	17.4	17.9
Senile	1,958	2,787	4,745	8.0	12.6	10.2
Manic-depressive	1,134	2,386	3,520	4.6	10.7	7.5
Dementia præcox	5,699	5,605	11,304	23.3	25.2	24.2
Others	6,386	6,327	12,713	26.1	28.5	27.3
Total	24,431	22,202	46,633	100.0	100.0	100.0

sis, the second largest group, included 8,366, or 17.9 per cent. Manic-depressive psychoses, alcoholic psychoses, and general paresis followed in the order named. Outstanding sex differences occurred in connection with general paresis and the alcoholic psychoses, where there were great relative excesses among the males. On the other hand, the females were in relative excess in the senile psychoses and in the manic-depressive group.

The average age at first admission was 48.47 years. Females were older than males, their average ages being 49.06 and 47.94 years, respectively. The difference is statistically significant. Females also showed a greater variability with respect to age. In the numerically-large groups of mental disorders, the average age at first admission varied from a minimum of 32.29 years in dementia præcox to a maximum of 76.92 years in the senile psychoses. It is evident, as judged by the averages, that dementia præcox and the manic-depressive psychoses occur primarily at from 30 to 40 years of age. First admissions with general paresis and alcoholic psychoses averaged 46 years. First admissions with senile psychoses and psychoses with cerebral arteriosclerosis predominated in old age.*

*See Table 18 for complete data.

During the fiscal years 1919-1921 the average age at first admission was 42.69 years. A decade later the average age had risen to 44.91 years. By 1939-1941 it had risen still further to 48.47 years. Thus in 20 years the average age at first admission had increased 5.78 years. During the same period the average ages of male and female first admissions grew by 6.38 and 5.12 years, respectively.

The rise in the average age at first admission is caused by a remarkable increase in admissions at the older ages. Thus first admissions aged 60 or over included 17.9 per cent of all first admissions in the fiscal years 1919-1921, 22.2 per cent in 1929-1931, and 29.7 per cent in 1939-1941. During the same period of 20 years, the percentage of male first admissions aged 60 or over increased from 10.4 to 28.4, and the percentage of females in this age group increased from 19.4 to 31.2. Considering those aged 75 or over, we find that this group constituted 5.1 per cent of the total first admissions in 1919-1921, and 10.6 per cent in 1939-1941. The relative increase of the aged was naturally accompanied by corresponding decreases at the younger ages. For example, male first admissions aged 20 to 29 decreased from 24.4 per cent of the total in 1919-1921 to 14.6 per cent in 1939-1941. Among females the corresponding decrease was from 20.5 to 15.1 per cent.

It is significant to note the changes in the average ages at first admission in the major groups of mental disorders.* Among general paretics the average age at first admission increased from 43.35 years in 1919-1921 to 46.28 years in 1939-1941. The average age of first admissions with alcoholic psychoses increased from 44.53 years to 46.00. Among first admissions with cerebral arteriosclerosis the average age increased from 64.79 to 67.74 years. Among first admissions with senile psychoses the corresponding increase was from 73.60 to 76.92 years. The average age of manic-depressive first admissions increased from 36.66 to 38.84 years. Only in the case of dementia præcox was there a decrease, the average age in 1939-1941 being 32.29 years, compared with 33.55 years in 1919-1921. That decrease is not statistically significant, however.

In view of the increase in the average age of the general population and a relative increase of those aged 60 or over, one would expect an increase in the number of first admissions of advanced

*See Tables 16, 17, 18.

age, with corresponding increases in the average ages of first admissions with psychoses with cerebral arteriosclerosis and senile psychoses. It is significant that the other groups of mental disorders, excluding dementia præcox, have shown similar increases in average age at first admission.

One may next consider the distribution of the major groups of mental disorders at different positions in the life span.* First admissions under 15 years of age may be grouped. There were 416 during the three years ended June 30, 1941. Of this total, 56, or 13.4 per cent, were cases of dementia præcox. The vast majority in this age group had to be classified as "other," and consisted primarily of first admissions with behavior disorders. In the age interval of 15 to 24 years, there were 5,016 cases, of which dementia præcox included 3,060, or 61.0 per cent. The manic-depressive group included 510 cases, or 10.2 per cent. The age group of 25 to 34 included 7,718 cases. Dementia præcox represented half of this total. There was also a rise in manic-depressive psychoses to a total of 946 cases, or 12.1 per cent. Note should be made of the first large totals of first admissions with general paresis and alcoholic psychoses, these representing 5.0 and 6.2 per cent, respectively, of the total first admissions in this age interval.

In the next interval, 35 to 44 years, one finds again that dementia præcox is the leading category, with 2,671, or 31.9 per cent of the 8,361 first admissions in this age group. This represents a significant drop, however, from the relative frequency in the preceding age interval. The manic-depressive group had 976 cases, or 11.7 per cent of the total. The frequency of general paresis and the alcoholic psychoses increased rapidly, and each represented over 10 per cent of the total. There were 7,999 first admissions in the age interval 45-54 years. Dementia præcox continued to decrease, representing 14.7 per cent of the total. There was also a decrease in the manic-depressive group. Relative to the other groups of mental disorders, there was a decrease in first admissions with general paresis. First admissions with cerebral arteriosclerosis reached their first significant total, 645 cases, or 8.1 per cent.

There were 6,230 first admissions at ages 55 to 64 years. The largest group consisted of psychoses with cerebral arteriosclerosis, which numbered 2,501, or 40.1 per cent. Manic-depressive psy-

*See Tables 19 to 26, inclusive.

choses and dementia præcox both declined rapidly. General paresis and the alcoholic psychoses also declined, though not so rapidly. There was a further increase of first admissions with cerebral arteriosclerosis in the age group of 65 to 74 years. The arteriosclerotic group included 3,314, or 56.7 per cent of the total. The senile psychoses were 1,503 cases, or 25.7 per cent. The other groups all declined to insignificant totals. The final group consists of those aged 75 or over. This group included 4,949 first admissions. Of this total, 2,924, or 59.1 per cent, were senile psychotics. Psychoses with cerebral arteriosclerosis made up the only other significant total, but amounted to only 1,857, or 37.5 per cent.

The preceding data therefore confirm the conclusions drawn from a consideration of average ages at first admission. Dementia præcox and the manic-depressive psychoses are largely present in the younger age groups, i. e., those under 35 years of age. General paresis and the alcoholic psychoses appear in significant totals from about 35 to 54 years. Above this age, one finds psychoses with cerebral arteriosclerosis and senile psychoses.

The final comparisons will show the variation of age in specific groups of first admissions.

All First Admissions

There were 46,633 first admissions during the three fiscal years which ended June 30, 1941. There were a few cases under 15 years of age, mostly instances of behavior disorders and psychoses with epidemic encephalitis. The number of first admissions increased rapidly through the age interval of 35 to 39 years, and then decreased gradually to minima at advanced ages. In proportion to the general population at corresponding ages, the trend was quite different, however. (Table 2.) At ages five to nine, for example, there was an average annual rate of 4.89 admissions per 100,000 population. There was a steady upward trend in the average annual rate of first admissions with advancing age. The rate increased rapidly to 106.85 at ages 25 to 29, increased slowly but regularly to 196.35 at ages 60 to 64, then grew very rapidly to a maximum of 636.44 at 75 years and over. Males and females showed similar trends, except for a drop among the latter at ages 40 to 44. In general, however, the male rates exceeded those of the females.

Table 2. Ages of First Admissions to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, and Average Annual Rates of First Admissions per 100,000 Population

Age (years)	Number			Per cent			Average annual rate per 100,000 population		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Under 5....	7	5	12	*	*	*	0.54	0.41	0.48
5-9	98	33	131	0.4	0.1	0.3	7.17	2.51	4.89
10-14	171	102	273	0.7	0.5	0.6	10.77	6.60	8.71
15-19	1,013	849	1,862	4.1	3.8	4.0	60.06	50.51	55.29
20-24	1,720	1,434	3,154	7.0	6.5	6.8	103.96	80.56	91.83
25-29	1,854	1,901	3,755	7.6	8.6	8.1	111.22	102.91	106.85
30-34	2,096	1,967	4,063	8.6	8.9	8.7	124.89	110.69	117.58
35-39	2,224	2,033	4,257	9.1	9.2	9.1	134.20	121.01	127.56
40-44	2,261	1,843	4,104	9.3	8.3	8.8	140.31	116.06	128.28
45-49	2,160	1,897	4,057	8.8	8.5	8.7	144.67	132.86	138.89
50-54	2,165	1,777	3,942	8.9	8.0	8.4	164.58	145.39	155.33
55-59	1,724	1,430	3,154	7.1	6.4	6.8	172.61	149.32	161.21
60-64	1,652	1,424	3,076	6.8	6.4	6.6	213.46	179.66	196.35
65-69	1,592	1,494	3,086	6.5	6.7	6.6	282.50	240.27	260.35
70-74	1,390	1,368	2,758	5.7	6.2	5.9	375.02	319.00	344.97
75 and over	2,304	2,645	4,949	9.4	11.9	10.6	679.26	603.30	636.44
Total ...	24,431	22,202	46,633	100.0	100.0	100.0	121.90	109.22	115.51

*Less than 0.05.

Table 3 compares the average annual rates of first admissions at corresponding ages in the fiscal years 1919-1921, 1929-1931, and 1939-1941. Among males, the rates increased at every age, beginning with 30 to 34 years, between 1919-1921 and 1929-1931. The increases in the rates ranged from 9 per cent at ages 30 to 34 to 68 per cent at 70 to 74. In general, the average annual rates increased more rapidly at the older ages. Between 1929-1931 and 1939-1941 there was, on the whole, a further increase in the rates of first admissions, especially after 40 years of age, though the rates of increase were less than those of the preceding decade.

Among females, the average annual rates of first admissions were less in 1929-1931 than in 1919-1921 until age 55. At the older ages, however, the rates had increased moderately during the decade. Between 1929-1931 and 1939-1941, the rates increased rapidly, with the exception of the age interval 45 to 49. Beyond this age, not only did the rates increase, but they did so at a rate which was accelerated with advancing age.

Table 3. First Admissions to All State and Licensed Hospitals for Mental Disease in New York State per 100,000 General Population, Fiscal Years 1919-1921, 1929-1931, and 1939-1941

Age (years)	Males 1919-1921 (a)	Males 1929-1931 (b)	Males 1939-1941 (c)	Males b/a	Males c/b	Females 1919-1921 (a)	Females 1929-1931 (b)	Females 1939-1941 (c)	Females b/a	Females c/b
15-19	54.01	57.80	60.06	1.07	1.04	40.36	38.68	50.51	0.96	1.31
20-24	108.74	100.72	103.96	0.93	1.03	66.67	67.53	80.56	1.01	1.19
25-29	120.64	103.00	111.22	0.85	1.08	95.62	84.86	102.91	0.89	1.21
30-34	114.49	124.52	124.89	1.09	1.00	100.51	97.09	110.69	0.97	1.14
35-39	120.77	143.12	134.20	1.19	0.94	106.74	102.15	121.01	0.96	1.18
40-44	113.10	136.13	140.31	1.20	1.03	107.97	114.26	116.06	1.06	1.02
45-49	108.14	134.47	144.67	1.24	1.08	121.88	107.59	132.86	0.88	0.94
50-54	106.04	149.25	164.58	1.41	1.10	125.56	119.39	145.39	0.95	1.22
55-59	118.32	150.27	172.61	1.27	1.14	120.79	121.52	149.32	1.01	1.23
60-64	139.66	180.48	213.46	1.29	1.18	134.01	134.76	179.66	1.01	1.33
65-69	178.57	220.34	282.50	1.23	1.28	149.04	176.26	240.27	1.18	1.36
70-74	190.08	316.75	375.02	1.68	1.18	208.37	228.54	319.00	1.10	1.40
75 and over..	289.00	465.56	679.26	1.61	1.46	282.37	376.92	603.30	1.33	1.60

Senile Psychoses

There were 4,745 first admissions with senile psychoses during the three years ended June 30, 1941. (Table 4.) Such admissions increased steadily with age, the great bulk, 2,924, or 61.6 per cent, occurring at 75 or over. The average annual number of such first

Table 4. Ages of First Admissions with Senile Psychoses to All State and Licensed Hospitals for Mental Disease in New York State, 1939-1941, and Average Annual Rates of First Admissions per 100,000 Population

Age (years)	Number Males	Number Females	Number Total	Per cent Males	Per cent Females	Per cent Total	Average annual rate per 100,000 population Males	Average annual rate per 100,000 population Females	Average annual rate per 100,000 population Total
40-44**....	1	..	1	0.1	..	*	0.06	..	0.03
45-49**....	1	3	4	0.1	0.1	0.1	0.07	0.21	0.14
50-59**....	8	18	26	0.4	0.6	0.5	0.61	1.47	1.02
55-59	17	29	46	0.9	1.0	1.0	1.72	3.03	2.35
60-64	93	148	241	4.7	5.3	5.1	12.02	18.67	15.38
65-69	189	334	523	9.7	12.0	11.0	33.54	53.71	44.12
70-74	422	558	980	21.5	20.0	20.7	113.85	130.12	122.58
75 and over	1,227	1,697	2,924	62.7	60.9	61.6	361.94	387.07	376.02
Total	1,958	2,787	4,745	100.0	100.0	100.0	9.77	13.71	11.75

*Less than 0.05.

**Based upon data submitted by the hospitals.

admissions per 100,000 corresponding population increased steadily to a maximum of 376.02 at 75 years and over. Females had higher rates than males at corresponding ages.

At ages below 75, the average annual rates of first admission with senile psychoses among males decreased between 1919-1921 and 1929-1931. (Table 5.) At 75 years or over, there was an increase of 18 per cent. A similar trend occurred between 1930 and 1940. Below 75 years, the rates decreased, but above that age the rate increased by 49 per cent.

In general, females showed the same trend as males. The rates decreased between 1920 and 1930, and decreased further between 1930 and 1940, at corresponding ages, up to 75; but they increased after 75. During 1939-1941 the females showed an increase of 4 per cent in the average annual rate at 70 to 74 years, and an increase of 47 per cent at 75 years and over.

Table 5. First Admissions with Senile Psychoses to All State and Licensed Hospitals for Mental Disease in New York State per 100,000 General Population, Fiscal Years 1919-1921, 1929-1931, and 1939-1941

Age (years)	Males					Females				
	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b
45-49*	0.21	0.08	0.07	0.38	0.88	0.90	0.27	0.21	0.30	0.78
50-54*	0.99	0.60	0.61	0.61	1.01	2.43	2.08	1.47	0.86	0.71
55-59	3.58	1.97	1.72	0.55	0.87	5.01	4.52	3.03	0.90	0.67
60-64	18.10	16.30	12.02	0.90	0.74	32.76	26.98	18.67	0.82	0.69
65-69	48.40	46.29	33.54	0.96	0.72	72.03	62.79	53.71	0.87	0.86
70-74	117.45	114.46	113.85	0.97	0.99	154.48	125.34	130.12	0.81	1.04
75 and over	206.87	243.50	361.94	1.18	1.49	224.78	263.41	387.07	1.17	1.47

*Based upon data submitted by the hospitals.

Since the great bulk of the first admissions with senile psychoses are 75 or over, the increased rates at these ages raised the average rates for the whole senile psychotic group in both decades.

Psychoses with Cerebral Arteriosclerosis

There were 8,366 first admissions with psychoses with cerebral arteriosclerosis during the three years ended June 30, 1941. (Table 6.) The numbers rose slowly before 50 years of age, then increased rapidly to 1,815, or 21.7 per cent of the total, at 65 to 69. There was a reduction in absolute numbers at 70 to 74 years, followed by an increase at ages 75 and over. On the basis of average annual rates, however, there was a steady rise from a minimum of 0.30 per 100,000 population at 35 to 39 to a maximum of 238.81 at 75 and over. In general, the male rates were considerably higher than those for females.

Table 6. Ages of First Admissions with Psychoses with Cerebral Arteriosclerosis to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, and Average Annual Rates of First Admissions per 100,000 Population

Age (years)	Number			Per cent			Average annual rate per 100,000 population		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
35-39	..	10	10	..	0.3	0.1	..	0.60	0.30
40-44	19	20	39	0.4	0.5	0.4	1.18	1.26	1.22
45-49	56	76	132	1.2	2.0	1.6	3.75	5.32	4.52
50-54	303	210	513	6.7	5.4	6.1	23.03	17.18	20.21
55-59	535	427	962	11.9	11.1	11.5	53.56	44.59	49.17
60-64	829	710	1,539	18.4	18.4	18.4	107.12	89.58	98.24
65-69	981	834	1,815	21.8	21.6	21.7	174.08	134.13	153.12
70-74	819	689	1,499	18.0	17.9	17.9	218.54	160.67	187.49
75 and over	976	881	1,857	21.6	22.8	22.2	287.74	200.95	238.81
Total ..	4,509	3,857	8,366	100.0	100.0	100.0	22.50	18.97	20.72

Unlike the senile psychoses, there was a considerable increase in average annual rates of first admissions among males at all ages between 1919-1921 and 1929-1931. (Table 7.) The rate of increase was highest at 75 and over, but even in the younger age intervals the increases ranged from 53 to 143 per cent. Between 1929-1931 and 1939-1941 the rates again increased among males at all ages over 50, though the rates of increase were less than during the previous decade.

Table 7. First Admissions with Psychoses with Cerebral Arteriosclerosis to All State and Licensed Hospitals for Mental Disease in New York State, per 100,000 General Population, Fiscal Years 1919-1921, 1929-1931, and 1939-1941

Age (years)	Males					Females				
	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b
40-44	0.74	1.80	1.18	2.43	0.66	1.07	2.80	1.26	2.62	0.45
45-49	2.08	4.23	3.75	2.03	0.89	3.14	6.11	5.32	1.94	0.87
50-54	9.36	16.32	23.03	1.74	1.41	7.42	15.11	17.18	2.04	1.14
55-59	21.28	41.74	53.56	1.96	1.28	21.26	34.53	44.59	1.62	1.29
60-64	42.79	75.96	107.12	1.78	1.41	30.23	52.19	89.58	1.73	1.72
65-69	72.61	111.23	174.08	1.53	1.56	31.67	76.89	134.13	2.43	1.74
70-74	57.70	157.66	218.54	2.73	1.39	33.68	86.92	160.17	2.58	1.84
75 and over..	62.64	195.48	287.74	3.12	1.47	38.15	111.51	200.95	2.92	1.17

Among females, the average annual rates increased at all ages between 1920 and 1930. In most cases the rates more than doubled. Between 1930 and 1940 the rates again increased in each age interval from 50 on. The rates of increase were less than those of the previous decade.

General Paresis

There were 2,853 first admissions with general paresis during the three years ended June 30, 1941. (Table 8.) They were concentrated heavily between ages 35 and 54, a group which included 1,793 cases, or 62.8 per cent of the total. The rates of first admissions followed a similar trend. They rose from minima under 20 years of age to a maximum of 15.96 per 100,000 population at 50

Table 8. Ages of First Admissions with General Paresis to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, and Average Annual Rates of First Admissions per 100,000 Population

Age (years)	Number			Per cent			Average annual rate per 100,000 population		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
5-9	..	1	1	..	0.1	*	..	0.08	0.04
10-14	8	3	11	0.4	0.4	0.4	0.50	0.19	0.35
15-19	9	15	24	0.4	2.2	0.8	0.53	0.89	0.71
20-24	9	13	22	0.4	1.9	0.8	0.54	0.73	0.64
25-29	58	45	103	2.7	6.4	3.6	3.48	2.44	2.93
30-34	203	85	288	9.4	12.2	10.1	12.10	4.78	8.33
35-39	321	113	434	14.9	16.3	15.2	19.37	6.73	13.00
40-44	379	111	490	17.6	16.0	17.2	23.52	6.99	15.32
45-49	371	93	464	17.2	13.4	16.3	24.85	6.51	15.89
50-54	330	75	405	15.3	10.8	14.2	25.09	6.14	15.96
55-59	201	56	257	9.3	8.1	9.1	20.12	5.85	13.14
60-64	127	45	172	5.9	6.4	6.0	16.41	5.68	10.98
65-69	86	22	108	4.0	3.2	3.8	15.26	3.54	9.11
70-74	33	10	43	1.5	1.4	1.5	8.90	2.33	5.38
75 and over	23	8	31	1.1	1.2	1.1	6.78	1.82	3.99
Total ..	2,158	695	2,853	100.0	100.0	100.0	10.77	3.42	7.07

*Less than 0.05.

to 54 years, and then declined to 3.99 at 75 or over. Males and females showed similar trends, though the maximum rate was reached about 10 years earlier in the case of the females. In general, the rates of male first admissions with general paresis were from three to four times as high as those of females at corresponding ages.

Unlike rates of first admissions as a whole, those for general paresis declined among both males and females between 1920 and 1930, except for a few fortuitous variations. (Table 9.) Among males they declined by 10 to 20 per cent. The rates of decline were even greater between 1930 and 1940. Among females, the rates declined by from 10 to 30 per cent between 1920 and 1930 throughout the age range from 20 to 54 years. Past age 55, the rates increased during the decade, although in view of the small

Table 9. First Admissions with General Paresis to All State and Licensed Hospitals for Mental Disease in New York State per 100,000 General Population, Fiscal Years 1919-1921, 1929-1931, and 1939-1941

Age (years)	Males					Females				
	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b
15-19	0.42	0.44	0.53	1.04	1.20	0.48	0.49	0.89	1.02	1.82
20-24	1.30	1.21	0.54	0.93	0.44	1.29	0.85	0.73	0.66	0.86
25-29	6.49	5.68	3.48	0.88	0.61	2.83	2.41	2.44	0.85	1.01
30-34	20.80	18.19	12.10	0.87	0.67	5.47	4.04	4.78	0.74	1.18
35-39	39.36	28.57	19.37	0.73	0.68	7.88	7.52	6.73	0.95	0.89
40-44	45.20	34.12	23.52	0.75	0.69	9.13	8.61	6.99	0.94	0.81
45-49	42.49	34.03	24.85	0.80	0.73	8.97	8.06	6.51	0.90	0.81
50-54	35.59	33.43	25.09	0.94	0.75	7.93	6.15	6.14	0.78	1.00
55-59	28.09	23.59	20.12	0.84	0.85	4.32	5.71	5.85	1.32	1.02
60-64	23.42	19.33	16.41	0.83	0.84	1.48	3.72	5.68	2.51	1.53
65-69	10.79	12.99	15.26	1.20	1.17	0.62	3.53	3.54	5.69	1.00
70-74	1.54	5.76	8.90	3.74	1.54	..	0.98	2.33	..	2.38
75 and over	1.05	5.14	6.78	0.49	1.32	..	1.00	1.82	..	1.82

number of admissions at the older ages these rates are not too significant. During the decade 1930-1940, the rates declined among females aged 35 to 49 years, but increased at older ages. In general, however, the rate of first admissions with general paresis, for constant age, has decreased among both males and females since 1920.

Alcoholic Psychoses

There were 3,132 first admissions with alcoholic psychoses during the three years ended June 30, 1941. (Table 10.) Of this total, 1,962, or 62.6 per cent, were concentrated in the age intervals from 35 to 54 years, corresponding almost exactly to the age distribution for general paresis. The average annual rates were negligible under 25 years of age. They rose to a maximum of 17.81 per 100,000 population at 50 to 54 years, and decreased steadily thereafter to 1.80 per 100,000 population at 75 years or over. The trends for males and females followed similar patterns, though the maximum rate was reached about five years later by males.

Rates of first admissions with alcoholic psychoses increased among males in all corresponding age groups between 1920 and 1930. Most of the increases were well over 100 per cent. (Table 11.) With minor exceptions, the rates also grew between 1930 and 1940, though the increases ranged from only 15 to 50 per cent.

Table 10. First Admissions with Alcoholic Psychoses to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, and Average Annual Rates of First Admissions per 100,000 Population

Age (years)	Number			Per cent			Average annual rate per 100,000 population		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
15-19	1	..	1	*	..	*	0.06	..	0.03
20-24	23	9	32	0.9	1.7	1.0	1.39	0.51	0.93
25-29	110	42	152	4.3	7.7	4.9	6.60	2.27	4.33
30-34	260	76	336	10.1	13.9	10.7	15.49	4.28	9.72
35-39	400	83	483	15.5	15.2	15.4	24.14	4.94	14.47
40-44	441	80	521	17.0	14.7	16.6	27.37	5.04	16.28
45-49	437	69	506	16.9	12.7	16.2	29.27	4.83	17.32
50-54	380	72	452	14.7	13.2	14.4	28.89	5.89	17.81
55-59	236	49	285	9.1	9.0	9.1	23.63	5.12	14.57
60-64	167	39	206	6.5	7.2	6.6	21.58	4.92	13.15
65-69	98	15	113	3.8	2.8	3.6	17.39	2.41	9.53
70-74	24	7	31	0.9	1.3	1.0	6.48	1.63	3.88
75 and over	10	4	14	0.4	0.7	0.4	2.95	0.91	1.80
Total ..	2,587	545	3,132	100.0	100.0	100.0	12.91	2.68	7.76

*Less than 0.05.

In general, females also showed increased rates of first admissions at corresponding ages between 1920 and 1930, and between 1930 and 1940. In the former decade, the significant rates increased by from 15 to 90 per cent. There were some fluctuations in the rates of increase between 1930 and 1940, but in general they were on about the same level as during the previous decade.

Table 11. First Admissions with Alcoholic Psychoses to All State and Licensed Hospitals for Mental Disease in New York State per 100,000 General Population, Fiscal Years 1919-1921, 1929-1931, and 1939-1941

Age (years)	Males					Females				
	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b
20-24	0.77	1.58	1.39	2.05	0.88	0.07	0.46	0.51	6.57	1.11
25-29	2.72	5.13	6.60	1.89	1.29	0.54	0.76	2.27	1.41	2.99
30-34	4.70	11.29	15.49	2.40	1.37	1.44	1.92	4.28	1.33	2.23
35-39	7.37	18.13	24.14	2.46	1.33	2.38	3.51	4.94	1.47	1.41
40-44	8.59	21.36	27.37	2.49	1.28	1.74	5.59	5.04	3.21	0.90
45-49	8.83	22.50	29.37	2.54	1.31	3.92	4.52	4.83	1.15	1.07
50-54	8.99	19.22	28.89	2.14	1.50	2.91	3.33	5.89	1.14	1.77
55-59	9.02	20.54	23.63	2.28	1.15	1.90	3.59	5.12	1.89	1.43
60-64	7.45	16.80	21.58	2.26	1.28	1.48	2.59	4.92	1.75	1.90
65-69	3.60	14.17	17.39	3.94	1.23	1.24	0.22	2.41	0.18	1.10
70-74	1.03	4.32	6.48	4.19	1.50	0.45	0.98	1.63	2.18	1.66
75 and over...	0.53	5.14	2.95	9.70	0.57	0.41	..	0.91	..	..

Manic-Depressive Psychoses

There were 3,520 first admissions with manic-depressive psychoses during the three years ended June 30, 1941. (Table 12.) They were concentrated heavily in the interval of 20 to 49 years, with the greatest concentration at 30 to 39. In general, the average annual rates per 100,000 population rose steadily to a maximum of 16.42 at ages 35 to 39, and declined steadily through the older ages.

Table 12. First Admissions with Manic-Depressive Psychoses to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, and Average Annual Rates of First Admissions per 100,000 Population

Age (years)	Number			Per cent			Average annual rate per 100,000 population		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
10-14	2	3	5	0.2	0.1	0.1	0.13	0.19	0.16
15-19	49	92	141	4.3	3.9	4.0	2.91	5.47	4.19
20-24	115	254	369	10.1	10.6	10.5	6.95	14.27	10.74
25-29	119	311	430	10.4	13.0	12.2	7.14	16.84	12.24
30-34	122	394	516	10.8	16.5	14.7	7.27	22.17	14.93
35-39	127	421	548	11.2	17.7	15.6	7.66	25.06	16.42
40-44	153	275	428	13.4	11.5	12.2	9.49	17.32	13.38
45-49	166	225	391	14.6	9.4	11.1	11.12	15.76	13.39
50-54	129	170	299	11.4	7.1	8.4	9.81	13.91	11.78
55-59	77	102	179	6.8	4.3	5.1	7.71	10.65	9.15
60-64	51	73	124	4.5	3.1	3.5	6.59	9.21	7.92
65-69	15	44	59	1.3	1.8	1.7	2.66	7.08	4.98
70-74	6	20	26	0.5	0.8	0.7	1.62	4.66	3.25
75 and over	3	2	5	0.3	0.1	0.1	0.88	0.46	0.64
Total ..	1,134	2,386	3,520	100.0	100.0	100.0	5.66	11.74	8.72

The maximum rate among females, 25.06, occurred at 35 to 39 years, whereas the maximum among males, 11.12, occurred at 45 to 49 years. Rates among females exceeded those of the males at corresponding ages by 100 to 200 per cent.

Between 1920 and 1930, the rates increased at some ages among males, and decreased at others. (Table 13.) In general, however, there was a small average increase. Between 1930 and 1940, however, the rate decreased among males in every age group by from 50 to 60 per cent. Among females, the rates decreased during both decades, but the decline was more noteworthy during the 1930-1940 decade.

Dementia Præcox

There were 11,304 first admissions with dementia præcox during the three years ended June 30, 1941. (Table 14.) They were grouped very largely between 20 and 39 years. Of the total first

admissions with dementia præcox, 7,500, or 66.3 per cent, were in this age interval. The average annual rate per 100,000 population rose rapidly from 1.79 at 10 to 14 years to a maximum of 59.87 at 25 to 29 years, and then tapered off smoothly to minima in old age. Males had a maximum rate of 67.78 at 20 to 24 years. Females had a maximum rate of 54.94 at 25 to 29 years.

Table 13. First Admissions with Manic-Depressive Psychoses to All State and Licensed Hospitals for Mental Disease in New York State per 100,000 General Population, Fiscal Years 1919-1921, 1929-1931, and 1939-1941

Age (years)	Males					Females				
	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b
15-19	8.42	9.02	2.91	1.07	0.37	11.94	12.98	5.47	1.09	0.42
20-24	13.96	16.31	6.95	1.17	0.43	21.23	21.81	14.27	1.03	0.65
25-29	15.15	11.66	7.14	0.77	0.61	29.76	27.38	16.84	0.92	0.62
30-34	15.14	11.72	7.27	0.77	0.62	32.49	28.12	22.17	0.87	0.79
35-39	13.04	16.42	7.66	1.26	0.47	35.36	26.21	25.06	0.74	0.96
40-44	12.80	17.13	9.49	1.34	0.55	24.56	24.26	17.32	0.99	0.71
45-49	10.80	16.19	11.12	1.50	0.69	21.64	20.63	15.76	0.95	0.76
50-54	10.34	19.72	9.81	1.91	0.50	17.77	21.36	13.91	1.20	0.65
55-59	14.81	14.44	7.71	0.98	0.53	16.94	17.00	10.65	1.00	0.63
60-64	9.79	10.75	6.59	1.10	0.61	16.49	11.47	9.21	0.70	0.80
65-69	11.48	6.61	2.66	0.58	0.40	12.11	7.27	7.08	0.60	0.97
70-74	6.18	9.00	1.62	1.46	0.18	8.98	5.86	4.66	0.65	0.80
75 and over..	3.16	2.14	0.88	0.68	0.41	3.65	1.00	0.46	0.27	0.46

Table 14. First Admissions with Dementia Præcox to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, and Average Annual Rates of First Admissions per 100,000 Population

Age (years)	Number			Per cent			Average annual rate per 100,000 population		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
10-14	29	27	56	0.5	0.4	0.5	1.83	1.74	1.79
15-19	596	493	1,089	10.4	8.8	9.6	35.34	29.33	32.34
20-24	1,138	833	1,971	20.0	14.9	17.4	67.78	46.80	57.39
25-29	1,089	1,015	2,104	19.1	18.1	18.6	65.33	54.94	59.87
30-34	920	905	1,825	16.1	16.1	16.1	54.82	50.93	52.82
35-39	728	872	1,600	12.8	15.6	14.2	43.93	51.90	47.94
40-44	511	560	1,071	9.0	10.0	9.5	31.71	35.27	33.48
45-49	340	414	754	6.0	7.4	6.7	22.77	28.99	25.81
50-54	192	231	423	3.4	4.1	3.7	14.60	18.90	16.67
55-59	106	148	254	1.9	2.6	2.2	10.61	15.45	12.98
60-64	32	61	93	0.6	1.1	0.8	4.13	7.70	5.94
70-74	2	9	11	*	0.2	0.1	0.54	2.10	1.38
65-69	14	29	43	0.2	0.5	0.4	2.48	4.66	3.63
75 and over	2	8	10	*	0.1	0.1	0.59	1.82	1.29
Total ...	5,699	5,605	11,304	100.0	100.0	100.0	28.43	27.57	28.00

Between 1920 and 1930, the rate of first admissions decreased among males in the interval of 20 to 34 years, and increased at higher ages. (Table 15.) Because of the concentration of male first admissions with dementia præcox at the younger ages, the

Table 15. First Admissions with Dementia Præcox to All State and Licensed Hospitals for Mental Disease in New York State per 100,000 General Population, Fiscal Years 1919-1921, 1929-1931, and 1939-1941

Age (years)	Males					Females				
	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b	1919-1921 (a)	1929-1931 (b)	1939-1941 (c)	b/a	c/b
15-19	28.50	29.47	35.34	1.03	1.20	11.70	13.72	29.33	1.17	2.14
20-24	68.87	59.55	67.78	0.86	1.14	26.65	27.90	46.80	1.04	1.68
25-29	75.05	60.65	65.33	0.81	1.08	38.11	35.08	54.94	0.92	1.57
30-34	53.94	51.31	54.82	0.95	1.07	37.27	38.18	50.93	1.02	1.33
35-39	37.44	47.69	43.93	1.27	0.92	38.72	39.60	51.90	1.02	1.31
40-44	22.98	26.35	31.71	1.14	1.20	36.12	36.65	35.27	1.01	0.96
45-49	13.71	19.17	22.77	1.40	1.19	29.38	28.78	28.99	0.98	1.01
50-54	9.36	15.72	14.60	1.68	0.93	26.85	26.15	18.90	0.97	0.72
55-59	5.28	7.95	10.61	1.51	1.33	18.66	17.40	15.45	0.93	0.89
60-64	5.32	5.21	4.13	1.51	0.79	8.24	8.89	7.70	1.08	0.87
65-69	0.65	3.31	2.48	5.09	0.74	5.59	5.73	4.66	1.03	0.81
70-74	0.51	0.36	0.54	0.71	1.50	1.80	3.58	2.10	1.99	0.59
75 and over	..	1.71	0.59	..	0.34	1.44	1.67	1.82	1.16	1.09

average rate, for constant age, decreased during the decade.[6] Between 1930 and 1940, however, most of the age group rates showed significant increases, with a corresponding growth in the average annual rate.[6]

Among females the significant age groups showed increased first admission rates between 1920 and 1930, and again between 1930 and 1940. As a consequence, the general rate of first admissions with dementia præcox has shown an upward trend among females.[7]

Ages and Types of Mental Disorder

Further studies in relationship to age and type of mental disorder are shown in Tables 16 to 26. Average ages of first admissions, classified according to the principal mental disorders are shown for the periods 1919-1921, 1929-1931 and 1939-1941 in Tables 16, 17 and 18. The following tables show the age groups of first admissions, from "under 15" to "75 years or over," classified according to the principal mental diseases.

Table 16. Average Age of First Admissions to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1919-1921, Classified According to Mental Disorders

Mental disorders	Average age (years)			Standard deviation (years)		
	Males	Females	Total	Males	Females	Total
General paresis	43.89±0.13	40.77±0.30	43.35±0.12	9.42±0.09	9.96±0.21	9.59±0.09
Alcoholic	44.39±0.31	45.05±0.56	44.53±0.27	10.83±0.22	10.37±0.39	10.74±0.19
With cerebral arterioscler.	65.25±0.20	64.14±0.26	64.79±0.16	8.83±0.14	9.57±0.18	9.15±0.11
Senile	73.90±0.18	73.40±0.16	73.60±0.12	7.86±0.13	8.59±0.11	8.31±0.08
Manic-depressive	37.17±0.25	36.39±0.16	36.66±0.14	13.82±0.18	12.46±0.12	12.96±0.10
Dementia præcox	30.14±0.09	35.72±0.14	33.55±0.08	8.83±0.07	11.14±0.10	10.27±0.05
All first admissions	41.56±0.10	43.94±0.11	42.69±0.07	16.73±0.07	17.31±0.08	17.04±0.05

Table 17. Average Age of First Admissions to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1929-1931, Classified According to Mental Disorders

Mental disorders	Average age (years)			Standard deviation (years)		
	Males	Females	Total	Males	Females	Total
General paresis	44.57±0.14	43.06±0.31	44.28±0.13	10.27±0.10	11.18±0.22	10.46±0.09
Alcoholic	45.29±0.18	44.03±0.38	45.10±0.16	11.02±0.13	9.85±0.27	10.86±0.12
With cerebral arterioscler.	66.70±0.13	65.68±0.16	66.26±0.10	9.43±0.09	10.14±0.11	9.74±0.07
Senile	74.42±0.09	74.40±0.14	74.41±0.10	7.50±0.06	8.44±0.10	8.06±0.07
Manic-depressive	38.51±0.21	36.17±0.15	37.12±0.13	13.66±0.14	12.45±0.11	12.99±0.09
Dementia præcox	31.65±0.10	35.94±0.12	33.48±0.08	9.99±0.07	11.48±0.09	10.87±0.06
All first admissions	44.36±0.09	45.61±0.10	44.91±0.07	17.41±0.06	18.13±0.07	17.74±0.05

Table 18. Average Age of First Admissions to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Mental Disorders

Mental disorders	Average age (years)			Standard deviation (years)		
	Males	Females	Total	Males	Females	Total
General paresis	46.91±0.16	44.30±0.32	46.28±0.75	11.12±0.11	12.69±0.23	11.58±0.10
Alcoholic	46.23±0.15	44.92±0.34	46.00±0.13	10.75±0.10	11.78±0.24	10.95±0.09
With cerebral arterioscler.	67.67±0.09	67.81±0.10	67.74±0.07	9.04±0.06	9.22±0.07	9.12±0.04
Senile	77.00±0.11	76.87±0.10	76.92±0.08	7.43±0.08	7.95±0.07	7.74±0.05
Manic-depressive	40.50±0.26	38.06±0.17	38.84±0.14	12.92±0.19	12.34±0.12	12.51±0.10
Dementia præcox	33.27±0.09	31.30±0.10	32.29±0.07	10.48±0.07	11.17±0.07	10.86±0.05
All first admissions	47.94±0.08	49.06±0.09	48.47±0.06	18.73±0.06	19.32±0.06	19.02±0.04

Table 19. First Admissions Under 15 Years of Age to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Principal Mental Disorders

Mental disorders	Number			Per cent			Average annual rate per 100,000 population		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
General paresis	8	4	12	2.9	2.9	2.9	0.19	0.10	0.14
Alcoholic	1	..	1	0.4	..	0.2	0.02	..	0.01
With cerebral arteriosclerosis	..	..	..	..	..	..	..	..	..
Senile	..	..	..	..	..	..	..	..	..
Manic-depressive	2	3	5	0.7	2.1	1.2	0.04	0.07	0.06
Dementia præcox	29	27	56	10.5	19.3	13.4	0.69	0.66	0.67
Others	236	106	342	85.5	75.7	82.2	5.58	2.59	4.11
Total	276	140	416	100.0	100.0	100.0	6.52	3.43	5.00

Table 20. First Admissions, 15 to 24 Years of Age, to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Principal Mental Disorders

Mental disorders	Number			Per cent			Average annual rate per 100,000 population		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
General paresis	18	28	46	0.7	1.2	0.9	0.53	0.81	0.68
Alcoholic	24	9	33	0.9	0.4	0.7	0.72	0.26	0.49
With cerebral arteriosclerosis	..	..	..	..	..	..	..	..	..
Senile	..	..	..	..	..	..	..	..	..
Manic-depressive	164	346	510	6.0	15.2	10.2	4.91	10.00	7.50
Dementia præcox	1,734	1,326	3,060	63.4	58.1	61.0	51.90	38.31	44.99
Others	793	574	1,367	29.0	25.1	27.3	23.74	16.59	20.09
Total	2,733	2,283	5,016	100.0	100.0	100.0	81.80	65.96	73.74

Table 21. First Admissions, 25 to 34 Years of Age, to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Principal Mental Disorders

Mental disorders	Number			Per cent			Average annual rate per 100,000 population		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
General paresis	261	130	391	6.6	3.4	5.0	7.80	3.59	5.61
Alcoholic	370	118	488	9.4	3.1	6.2	11.06	3.26	7.00
With cerebral arteriosclerosis	..	..	..	..	..	..	..	..	..
Senile	..	..	..	..	..	..	..	..	..
Manic-depressive	241	705	946	6.1	18.2	12.1	7.20	19.45	13.57
Dementia præcox	2,009	1,920	3,929	50.9	49.6	50.3	60.05	52.97	56.37
Others	1,069	995	2,064	27.1	25.7	26.4	31.96	27.45	29.61
Total	3,950	3,868	7,818	100.0	100.0	100.0	118.08	106.72	112.17

Table 22. First Admissions, 35-44 Years of Age, to All State and Licensed Hospitals for Mental Diseases in New York State, Fiscal Years 1939-1941, Classified According to Principal Mental Disorders

Mental disorders	Number			Per cent			Average annual rate per 100,000 population		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
General paresis	700	224	924	15.6	5.8	11.1	21.42	6.85	14.14
Alcoholic	841	163	1,004	18.8	4.2	12.0	25.73	4.99	15.36
With cerebral arteriosclerosis	19	30	49	0.4	0.8	0.6	0.58	0.92	0.75
Senile	1	..	1	*	..	*	0.03	..	0.02
Manic-depressive	280	696	976	6.2	18.0	11.7	8.57	21.30	14.93
Dementia præcox	1,239	1,432	2,671	27.6	36.9	31.9	37.91	43.82	40.86
Others	1,405	1,331	2,736	31.3	34.3	32.7	42.98	40.73	41.86
Total	4,485	3,876	8,361	100.0	100.0	100.0	137.21	118.60	127.91

*Less than 0.05.

Table 23. First Admissions, 45-54 Years of Age, to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Principal Mental Disorders

Mental disorders	Number			Per cent			Average annual rate per 100,000 population		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
General paresis	701	168	869	16.2	4.6	10.9	24.96	6.34	15.92
Alcoholic	817	141	958	18.9	3.8	12.0	29.09	5.32	17.55
With cerebral arteriosclerosis	359	286	645	8.3	7.8	8.1	12.78	10.79	11.82
Senile	9	21	30	0.2	0.6	0.4	0.32	0.79	0.55
Manic-depressive	295	395	690	6.8	10.8	8.6	10.50	14.90	12.64
Dementia præcox	532	645	1,177	12.3	17.6	14.7	18.94	24.34	21.56
Others	1,612	2,018	3,630	37.3	54.9	45.4	57.40	76.15	66.50
Total	4,325	3,674	7,999	100.0	100.0	100.0	153.99	138.64	146.54

Table 24. First Admissions, 55-64 Years of Age, to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Principal Mental Disorders

Mental disorders	Number			Per cent			Average annual rate per 100,000 population		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
General paresis	328	101	429	9.7	3.5	6.9	18.50	5.77	12.18
Alcoholic	403	88	491	11.9	3.1	7.9	22.73	5.03	13.94
With cerebral arteriosclerosis	1,364	1,137	2,501	40.4	39.8	40.1	76.94	64.96	70.99
Senile	110	177	287	3.3	6.2	4.6	6.21	10.11	8.14
Manic-depressive	128	175	303	3.8	6.1	4.9	7.22	10.00	8.60
Dementia præcox	138	209	347	4.1	7.3	5.6	7.79	11.94	9.85
Others	905	967	1,872	26.8	33.9	30.0	51.05	55.24	53.14
Total	3,376	2,854	6,230	100.0	100.0	100.0	190.44	163.06	176.84

Table 25. First Admissions, 65-74 Years of Age, to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Principal Mental Disorders

Mental disorders	Number			Per cent			Average annual rate per 100,000 population		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
General paresis	119	32	151	4.0	1.1	2.6	12.74	3.04	7.61
Alcoholic	122	22	144	4.1	0.8	2.5	13.06	2.09	7.26
With cerebral arteriosclerosis	1,791	1,523	3,314	60.1	53.2	56.7	191.72	144.96	166.97
Senile	611	892	1,503	20.4	31.2	25.7	65.40	84.90	75.72
Manic-depressive	21	64	85	0.7	2.2	1.4	2.24	6.09	4.28
Dementia præcox	16	38	54	0.5	1.3	0.9	1.71	3.62	2.72
Others	302	291	593	10.1	10.2	10.1	32.33	27.70	29.88
Total	2,982	2,862	5,844	100.0	100.0	100.0	319.21	272.40	294.43

Table 26. First Admissions, Aged 75 Years or Over, to All State and Licensed Hospitals for Mental Disease in New York State, Fiscal Years 1939-1941, Classified According to Principal Mental Disorders

Mental disorders	Number			Per cent			Average annual rate per 100,000 population		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
General paresis	23	8	31	1.0	0.3	0.6	6.78	1.82	3.99
Alcoholic	10	4	14	0.4	0.2	0.3	2.94	0.91	1.80
With cerebral arteriosclerosis	976	881	1,857	42.4	33.3	37.5	287.74	200.94	238.81
Senile	1,227	1,697	2,924	53.3	64.2	59.1	361.74	387.07	376.02
Manic-depressive	3	2	5	0.1	0.1	0.1	0.88	0.46	0.64
Dementia præcox	2	8	10	0.1	0.3	0.2	0.59	1.82	1.29
Others	63	45	108	2.7	1.7	2.2	18.57	10.27	13.89
Total	2,304	2,645	4,949	100.0	100.0	100.0	679.26	603.30	636.44

First Admissions to the New York Civil State Hospitals, 1942-1948

Owing to the lack of a census since 1940, it is impossible to arrive at reliable estimates of the age distribution of the general population for the following years. Hence it is not possible to compute reliable rates of first admissions in relation to age, since 1941. However, certain trends may be ascertained directly from a consideration of first admissions to the New York civil state hospitals from 1942 to 1948. Table 27 shows the distribution of the annual first admissions according to major groups of mental disorders.

It will be observed that there were 13,738 first admissions during the fiscal year ended June 1, 1942. The annual total then decreased to a minimum of 12,415 during the fiscal year ended March 31, 1945. Since 1946, the total first admissions have increased, reaching 14,631 during the year ended March 31, 1948. First admissions with general paresis have continued to decline throughout the entire period. They fell from a total of 766 to 503. They represented 5.6 per cent of the total first admissions in 1942 and 3.4 per cent in 1948.

First admissions with alcoholic psychoses declined during the war years to a minimum of 554 in 1944, or 4.3 per cent of all first admissions. They have since increased rapidly, totaling 978 in 1948, or 6.7 per cent of the total. First admissions with psychoses with cerebral arteriosclerosis decreased between 1942 and 1947, but increased appreciably in 1948. In general, however, these psy-

Table 27. First Admissions to the New York Civil State Hospitals, Fiscal Years 1942 to 1948, Classified According to Principal Groups of Mental Disorders

Mental disorders	Number							Per cent						
	1942	1943*	1944	1945	1946	1947	1948	1942	1943	1944	1945	1946	1947	1948
General paresis	766	549	677	633	561	555	503	5.6	5.8	5.2	5.1	4.4	4.1	3.4
Alcoholic	909	611	554	576	698	705	978	6.6	6.4	4.3	4.6	5.4	5.2	6.7
With cerebral arteriosclerosis	3,162	2,256	3,102	2,834	2,759	2,766	2,955	23.0	23.7	23.8	22.8	21.6	20.5	20.2
Senile	1,698	1,356	2,270	1,994	2,180	2,085	2,376	12.4	14.2	17.4	16.1	17.1	15.4	16.2
Manic-depressive	683	452	606	593	509	517	470	5.0	4.7	4.7	4.8	4.0	3.8	3.2
Dementia præcox	3,330	2,295	3,079	3,070	3,292	3,743	4,017	24.2	24.1	23.6	24.7	25.8	27.7	27.4
Others	3,190	2,016	2,739	2,715	2,764	3,141	3,332	23.2	21.1	21.0	21.9	21.7	23.2	22.8
Total	13,738	9,535	13,027	12,415	12,763	13,512	14,631	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Period includes only 9 months owing to change in fiscal year.

Table 28. First Admissions to the New York Civil State Hospitals, Fiscal Years 1942 to 1948, Classified According to Age

Age (years)	Number							Per cent						
	1942	1943*	1944	1945	1946	1947	1948	1942	1943	1944	1945	1946	1947	1948
Under 15	189	129	135	184	137	181	211	1.4	1.4	1.0	1.4	1.1	1.4	1.4
15-19	554	369	525	524	516	524	613	4.0	3.9	4.0	4.2	4.0	3.9	4.2
20-24	844	565	765	717	736	940	987	6.1	5.9	5.9	5.8	5.8	7.0	6.7
25-29	946	612	844	756	831	972	1,055	6.9	6.4	6.5	6.1	6.5	7.2	7.2
30-34	990	684	845	894	890	1,032	1,055	7.2	7.2	6.5	7.2	7.0	7.6	7.2
35-39	1,101	723	839	864	941	1,039	1,085	8.0	7.6	6.4	7.0	7.4	7.7	7.4
40-44	1,090	685	891	878	877	942	1,010	7.9	7.2	6.8	7.1	6.9	7.0	6.9
45-49	1,069	697	918	813	895	860	980	7.8	7.3	7.0	6.5	7.0	6.4	6.7
50-54	982	688	903	866	860	956	951	7.1	7.2	6.9	7.0	6.7	7.1	6.4
55-59	971	626	875	846	854	876	964	7.1	6.6	6.7	6.8	6.7	6.4	6.6
60-64	899	677	888	878	847	912	962	6.5	7.1	6.8	7.1	6.6	6.7	6.6
65-69	1,061	746	975	972	983	887	1,004	7.7	7.8	7.5	7.8	7.7	6.6	6.9
70 and over	3,034	2,318	3,568	3,193	3,381	3,369	3,732	22.1	24.3	27.4	25.7	26.4	24.9	25.5
Unascertained	8	16	56	30	15	22	22	0.1	0.2	0.4	0.2	0.1	0.2	0.2
Total	13,738	9,535	13,027	12,415	12,763	13,512	14,631	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Period includes only 9 months owing to change in fiscal year.

choses have formed a smaller percentage of total first admissions since 1944. This change is noteworthy in view of the marked upward trend in such first admissions for several decades prior to 1944.

The number of first admissions with senile psychoses has increased since 1942, though they fluctuated irregularly in relation to all first admissions. The manic-depressive psychoses have continued their downward trend. First admissions with dementia præcox, on the other hand, after declining for several years, resumed an upward trend, and reached a total of 4,017 in 1948, or 27.4 per cent of total first admissions.

The changing proportions of the several groups of mental disorders are related to corresponding changes in the ages of the first admissions (see Table 28). During the period of decline in the number of first admissions with dementia præcox, the percentages in the age groups of 15 to 40 years decreased. After 1945 the corresponding percentages increased, in agreement with the growth of first admissions with dementia præcox. The percentage of first admissions aged 40 to 50 declined after 1942, in accordance with the continued downward trend in first admissions with general paresis. Finally, considering the old-age group (patients aged 60 or over), one finds a continued increase through 1944. In that year, the admissions of this group represented 41.7 per cent of all first admissions. Since 1944, however, there has been a slight downward trend, and the percentage of first admissions in this age group seems to be leveling off at approximately 40. The future trend depends upon the balance between the relative number of first admissions with senile psychoses and psychoses with cerebral arteriosclerosis and the number with dementia præcox.

Summary

1. The average age of first admissions to all hospitals for mental disease in New York State has increased by almost six years since 1920.

2. All the major groups of mental disorders, with the exception of dementia præcox, have shown similar increases in the average ages of first admissions.

3. The increase in such average ages is due primarily to a great relative increase of first admissions at ages of 60 and over.

4. Rates of first admissions per 100,000 population have increased at almost all ages since 1920. The increases were especially marked at ages 60 and over.

5. An exception to this trend occurred in connection with general paresis, where the specific age rates have decreased since 1920. There has also been a downward trend in rates of first admissions with manic-depressive psychoses, especially since 1930.

6. The major groups of mental disorders occur at different periods of life. Dementia præcox and the manic-depressive psychoses predominate in early maturity. General paresis and the alcoholic psychoses occur primarily in the forties and fifties. Psychoses with cerebral arteriosclerosis and senile psychoses occur with rising incidence after 60 years of age. The senile psychoses are especially prevalent after the age of 75.

7. Rates of first admissions increase with age. The rates of increase are especially rapid in early maturity, and at advanced ages (i. e., 60 or over).

8. The foregoing statement is a composite report, based upon all groups of mental disorders. Rates of first admissions with general paresis rise to a maximum in the early fifties, and decline at older ages. Rates of first admission with alcoholic psychoses also reach a maximum in the early fifties. The manic-depressive group reaches a maximum rate of first admissions at ages 35 to 39. First admissions with dementia præcox reach a maximum rate at 25 to 29.

9. Since 1942 there has been an upward trend in the number of first admissions with dementia præcox. The number of first admissions with psychoses with cerebral arteriosclerosis has declined in comparison with the previous decade. These trends probably explain the rising percentage of first admissions aged 15 to 40 years since 1945, and the halt to the rising percentage of those aged 60 or over.

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REFERENCES

1. Malzberg, Benjamin: Social and Biological Aspects of Mental Disease. Chapter 2. State Hospitals Press. Utica, N. Y. 1940.
2. Goodman, Nathan G.: Benjamin Rush. P. 262. University of Pennsylvania Press. Philadelphia. 1934.
3. Esquirol, E.: Mental Maladies. A Treatise on Insanity. (Translated by E. K. Hunt, M. D.) P. 35 Lea and Blanchard. Philadelphia. 1845.
4. U. S. Census. 1860. Vol. I Population. Pages LXXXV-LXXXVI.
5. Chapman, T. A.: On the influence of age, sex and marriage on the liability to insanity. J. Ment. Sci., 25:26, 1880.
6. Malzberg, Benjamin: The increase of mental disease. PSYCHIAT. QUART, 17: 497, July 1943.
7. Ibid.

PSYCHOSOMATICS

BY JAMES A. BRUSSEL, M. D.

How vast! How dramatic!
The psychosomatic conception has traveled along;
This clinical tonic,
Now pathognomonic, today is our specialty's song.
No longer the quizzical
Doubts that the physical symptom is born in the mind;
For this is our credo:
Dat debbil, libido is somewhere involved and entwined
Around the sick ego.
No matter where we go, the psyche must take on the blame.
Awake or in coma,
The browbeaten soma is left to be burdened with shame.
The sniffles, the sneezes,
The asthmatic wheezes, the ulcer, arthritis and such,
Of course, hypertension
Is one we must mention where psyche has figured so much.
The wild epileptic,
The grouchy dyspeptic, the child with the croup or the pox,
The bilious hepatic. . .
They're psychosomatic, they can't stand reality shocks.
Hurray for this ism
That sews up the schism 'twixt body and mind—yes, it's hot!
Must *all* things erratic
Be psychosomatic? Gee, whiz! Ain't there something that's *Not?*

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Willard, N. Y.

EDITORIAL COMMENT

MORE TRUTH THAN TACT

We pity and endeavor to treat the child afraid of the dark. We inquire seriously—for the inquiry casts great light on the workings of the human mind—into the phenomenon of primitive man, trembling on the borders of the unexplored. But we are all too likely to ignore blandly the not infrequent spectacle of modern scientific man himself—proud and paranoid—cloaked in the scorn which masks fear, and standing, anxiety-ridden and negativistic, at the brink of the black unknown.

We are moved to this discussion by cursory consideration of certain recent developments in psychiatry, in the fields of physical and psychological treatment, in theory, and—in particular—in the revival of psychiatric interest in that vast and shadowy region which we label, without understanding, as that of "extrasensory" or "parapsychological" phenomena. From the point of view of the solid middle ground of our own specialty, these matters not only verge upon the fearful unknown but can be discerned as the dim, lunatic fringes of science. All the more we can say, however, that this is certainly an appropriate territory for psychiatric exploration.

But the psychiatrist, like other medical men, seems to share with child and savage a fear of the unknown dark, a fear which twists like an evil thread so far through history and prehistory that it may even be phyletic. Phyletic too, may be the characteristically human, paranoid reaction with which the modern man of science may still drape himself to dissimulate his fear. At least the history of our times is so blackened by suspicion, persecution and abuse of the innovator that the creation of scientific martyrs can almost be predicted as a necessary sacrifice to insure scientific advance. The longer the step, the wider the divergence from established thought or established practice, the greater the probability that motives will be suspect, reputation be smirched, and scientific standings destroyed.

Medical records provide a multiplicity of illustrations. Concerning these, a certain famous Harveian Oration, delivered at University College, London, 103 years ago, seems pertinent. It is

pertinent because it concerns a phenomenon which at that time enjoyed all the disrepute of telepathy, clairvoyance and precognition today, a phenomenon now recognized as a respectable truth and now in wide medical use, despite the fact that we still have little or no more understanding of its basis than we have today of the basis of telepathy. That is, the subject of this famous lecture was mesmerism, which we know today as hypnotism; and the lecturer, one John Elliotson, M. D., was denounced by *The Lancet* as a "professional pariah," with his lecture condemned in advance as a "black infamy" which would degrade the arms of the college sponsoring it.

Bramwell* reports the incident in his standard work on hypnotism. Elliotson, says Bramwell, "exhorted his listeners to study mesmerism calmly and dispassionately, and reminded them, with more truth than tact, that all the greatest discoveries in medical science, and the most important improvements in its practice, had been opposed by the profession in the most unprincipled manner. As examples of scientific discoveries which had been received in this way, he cited those of the lacteal vessels, the thoracic duct, the sexual system of plants, the circulation of the blood, the sounds of the chest and their relation to the diseases of the heart and lungs and their coverings, etc. As instances of improvement in practice which had been treated in like manner, he referred to the employment of Peruvian bark, inoculation and vaccination for small-pox, the use of mild dressings instead of boiling oil in gunshot wounds, the ligature of the bleeding vessels after operation, instead of the application of burning pitch or red-hot irons, etc. We should, Elliotson said, never forget these things, nor allow authority, conceit, habit, or the fear of ridicule to make us hostile to truth."

Elliotson knew much of which he spoke, for it was he, as a pioneer in giving quinine in massive doses, who met the professional opposition to employment of Peruvian bark; and it was he also who had endured the ridicule and abuse attending the first use in England of Laënnec's newly-invented stethoscope, despite professional indignation and contempt over attempts to investigate disease by means of chest sounds.

*Bramwell, J. Milne: Hypnotism: Its History, Practice and Theory. 3d edition. J. B. Lippincott Company. Philadelphia. 1930.

Were Elliotson alive today, he could add other striking instances from both pure and applied science: the Darwinian theory of evolution and Mendel's laws of inheritance; the atomic theory of the structure of matter; Einstein's theory of relativity; and, in applied science, the extremely silly idea that man could ever build such things as horseless carriages or machines which would fly. In medicine, he might be impressed by the uproar raised over analgesics in childbirth, by the general ridicule first aroused by the electroencephalograph, and by the still-echoing fanatical denunciations caused by the early explorations of the unconscious by Freud.

Like hypnotism in Elliotson's time, all these advances were on the lunatic fringe of science in their own early days. We think that, as in Elliotson's time, medical men in general and psychiatrists in particular would do well to review, now and then, for the good of science, some of these instances of the paranoid negativism which has so often delayed medical progress.

This present excursion into what Bramwell calls "more truth than tact" is occasioned by the publication in this issue of THE PSYCHIATRIC QUARTERLY of papers by Jan Ehrenwald, Eric Berne and Bernard E. Gorton: "Quest for 'Psychics' and 'Psychical' Phenomena in Psychiatric Studies of Personality," "The Nature of Intuition," and "The Physiology of Hypnosis." Ehrenwald's subject is frank extrasensory perception; Berne's is close to, if not across, the frontier of the paranormal; and Gorton's illustrates the present respectable standing of a procedure of which the mechanism is still almost as obscure as in the days when its incomprehensibility contributed to its disrepute. A forthcoming issue of THE QUARTERLY will contain a paper by Charles Philip Wilson, H. H. Corman and A. A. Cole, dealing with the hypnotizability of the psychotic, once held to be impossible. Hypnosis today is in daily use, for investigation and treatment, despite our failure to understand it; it is our contention that we can usefully study established parapsychological phenomena toward the same end.

It should be emphasized that we recognize that extrasensory phenomena are by no means the only current matter which many of us seem to prefer to denounce rather than to accord a fair hearing. Because its rationale could not be understood, shock therapy was, and is, abhorred by many adherents of the psychological treatment schools; psychosurgery was greeted by even more extreme condemnations; and, among organicists and others, certain new psycho-

therapeutic procedures in the psychoses recently aroused as violent a storm as had greeted the psychosurgeons. Wilhelm Reich's orgone and psychotherapeutic theories may be other cases in point; one suspects that anger at Reich's real or supposed political and social views has also colored much of the reaction toward his scientific work, which many appear inclined to reject without according a hearing. In the case of shock therapy, opposition has failed to prevent its increasing employment; in psychosurgery, new procedures appear not only to have great clinical benefits but to have opened up important new avenues for investigation of the functions of the brain; in psychotherapy of the psychoses, astonishing and significant progress appears to have been made, with a widening circle of interested practitioners and investigators, in the face of the storm aroused by discussion of the new methods.

Parapsychological phenomena, although commanding increased psychiatric attention of late, appear to have met more scorn than indignation—though evidences of the latter are not lacking. One may assume this scornful reaction to be motivated largely by the fact that parapsychological phenomena are at present matters for inquiry, rather than instruments for treatment; even though the fact should be apparent on reflection that they contain implications of vast importance for both theory and treatment—particularly for psychological treatment.

We suggest, as does Ehrenwald, that psychiatrists and others in a position to make observations may now well endeavor to observe more carefully and report more systematically than they have been used to doing. We suggest that, as a preliminary, they endeavor to familiarize themselves with what has been done and what is being done inside and outside our own specialty, in the way of sober, scientific study of parapsychological phenomena.

At least three important lines of inquiry in this field suggest themselves readily. One is the study of the manifestations reported by the spiritualists, by investigators of haunted houses, and psychical researchers generally. Traditionally, there has clung to this an odor of brimstone, which is now generally recognized as the well-defined smell of hocus-pocus. The hard-headed scientist in other fields has generally sniffed the air and leaped to the easy —and incorrect—conclusion that because there is an aroma of trickery here, all, all is trickery and unworthy of serious consideration. He is less ready to believe a much less simple truth—that

inside the mumbo jumbo and the shrouding nebulosity of the stage setting, there seems to be a small, hard kernel of fact, a core of data verifiable by scientific methods and inexplicable by the rules of natural phenomena which are ordinarily employed. But cautious, skeptical and scientifically-trained investigators, who have studied psychical phenomena with scrupulous care over periods of years, are in substantial agreement that such a kernel of truth exists.

A second field of investigation, that of experimentation and inquiry under rigorously-controlled conditions, is best exemplified in this country by the work of J. B. Rhine and associates at Duke University. There will be no attempt to discuss or review it here. It seems sufficient to note that—under conditions constantly made more strict to meet criticisms—the Duke experiments have shown results in telepathy, clairvoyance and psychokinetics which have, consistently, over the years, been unexplainable by chance. The Duke figures have been subjected to complete and careful statistical analysis after analysis; and—like it or not—they appear to demonstrate conclusively that mind-to-mind communication, extrasensory "vision," precognition, and some degree of influence of "mind over matter" do exist.

The third apparent road of inquiry is that of clinical psychiatry and clinical psychology, our own field. Such material as has been published from these sources has been largely what has been accidentally encountered during analyses or other psychotherapeutic relationships. Few, if any, workers have searched systematically for extrasensory phenomena; reporting has been haphazard; the nature of the material makes it particularly difficult to organize or evaluate; and there has been much adverse criticism of the findings, not all of which criticism can be attributed to paranoid negativism.

In particular, the possible role of the extrasensory in psychopathic mental content has been neglected, a matter for which there is understandable reason. It is easier, for example, to assume that ideas of reference are entirely delusional than to assume that, in perhaps extremely exceptional cases, there may be some slight factual foundation—in a patient's extrasensory perception of other persons' conscious or unconscious feelings toward him. It is easier, too, in the analysis of dreams, to insist on tracing all dream elements relentlessly to determinable factors in a patient's person-

ality than to admit the possibility that another personality has intruded telepathically into the dreaming—yet a number of the reports, from psychoanalytic sources concerning telepathy are concerned with just that sort of intrusion.

One may assume numerous reasons besides downright negativism for scientific neglect of this unexplored territory. Freud reported instances of apparent telepathy but did not explore the subject; it is fair to assume that he felt the difficulty in establishing his main tenets was a sufficient obstacle to overcome, without adding prejudice against psychical phenomena to it. At least, we feel perfectly assured that there are workers in important endeavors today who would hesitate to endorse parapsychological research publicly for fear of reflected disrepute on their own professional activities. Like the idols Omar loved so long, acknowledged interest in the uncanny might do one's "credit in this World much wrong."

There are encouraging signs that such professional hesitancy has less excuse than formerly. Russell G. MacRobert, New York City neurologist and psychiatrist, circulated a questionnaire in the spring and summer of 1948 to determine the attitude of psychiatrists toward research in parapsychology. The questionnaire was sent to 2,510 specialists listed in the 1947 directory of the American Board of Psychiatry and Neurology and in the 1948 membership roll of the Association for Research in Nervous and Mental Disease. Dr. MacRobert reports* on answers by 723 of them. The report is encouraging evidence that at least a respectable minority of specialists does not consider interest in parapsychology synonymous with loss of professional dignity.

Of the 723 replying to Dr. MacRobert, 495, or 68 per cent, expressed belief that a useful purpose would be served if psychiatrists and neurologists were to sponsor research to see if extrasensory perception had a place in psychodynamics. Almost as many, 453, or 63 per cent, said they did not feel that identification with psychical research would discredit their professional standing. Of the 163 who said they had personally observed occurrences in the extrasensory field, 151, or 92 per cent, believed that the sponsoring of research would be useful; since there were only 12 others

*MacRobert, Russell G.: Current attitudes of American neuropsychiatrists toward parapsychology: a survey. J. Parapsychol., 12:4, 257-272, December 1948.

who believed research would not be useful or who were undecided on the subject, those favoring research apparently included some of the 22 (14 per cent) of these 163 observers who thought bias or errors explained the phenomena, and some of the 25 (15 per cent) who thought professional standing would be impaired by identification with psychical research. That is, MacRobert's small group with personal experience apparently included unbelievers who wanted to investigate, nevertheless, and others who wanted to investigate even at the price of professional standing.

However it may be interpreted or discounted, this survey is evidence that there is a strong, active—if minority—group in psychiatry who are receptive to at least a little more truth at the expense of tact. Our purpose here is to urge a greater willingness to accept truth where acceptance involves crossing the brink of the terrifying unknown. We are addressing this as much to the psychotherapist who opposes radical physical research, as to the mechanist who once opposed hypnotism and who now opposes psychical research on the grounds that the *modus operandi* cannot at present be understood. We would remind the psychotherapist whom we have heard protesting against the "brutality" of shock treatment and brain operations that similar "brutality" is involved in tonsillectomies, laparotomies and hemorrhoidectomies—sometimes undertaken with less clear indications—and that hyperpyrexia may involve more torture for the patient than insulin or electric shock therapy; and we know no psychotherapists who would oppose use of these surgical procedures or exclude fever therapy from the general medical armamentarium. Similarly, we would recall to the organicist a brief fable of medical science of the nineteenth century when controversy was at its height over such matters as evolution and spontaneous generation of life from inert matter. One of Edna Lyall's novels depicts a scene in an anatomy laboratory. A noisy exhibitionist announces loudly that he has never found a soul in a dissecting room—to be answered by the class atheist that only a fool would look for one there. We feel that neither the lack of psychodynamic understanding of a physical procedure nor of a physical basis for psychic phenomena should be a barrier to research or a bulwark for prejudice. We feel that psychiatrists should be able to take this stand without necessarily embroiling themselves in heredity-vs.-environment controversies

or entangling themselves in dialectic subtleties over soul and body dichotomy vs. psychosomatics.

We feel also that past hocus-pocus and disrepute should be dismissed from scientific consideration. We are all too well aware that the modern atomic physicist has achieved the goal of yesterday's cheating alchemist; and it might also do us good to reflect that today's inquirers into brain function have demonstrated that even the phrenologist was not quite the fool that he seemed—he looked on the outside when he should have looked on the inside, but he had the germ of the right idea.

We have had the recent—to us astonishing—spectacles of Russia "repealing" the Mendelian laws of heredity and banning certain modern astronomical concepts because they do not conform to Marxian fiat; and we know the Russians have outlawed Reich and adulterated Freud because their conclusions of what is truth conflict with those of Marx. We conceive that as individuals or professional groups we are all too prone to this medieval practice of rejecting or accepting because an idea conflicts with, or conforms to, our own particular brand of revealed scientific religion. So we find psychosurgery brutal, psychoanalysis filthy, parapsychology ludicrous.

We have yet to hear of an individual mentally or emotionally fit to be a scientific Procrustes—to determine here is where to stretch, here is where to lop off, the truth. It is true that as individual Procrusteans we distort and suppress far less truth than does Russia's collectivist Procrustean monster (which is, incidentally, the best—and the conclusive—argument for individualistic, as opposed to collectivistic, society). But any Procrustes, however limited his power, is a monster for the slaying. He is an offense which cries to heaven for a hero with a sword. One may hail the hero as Theseus, or conscience—or super-ego if one prefers.

We think, in these days of accelerated progress and heightened controversy, of bold advance and bitter recrimination, of scientific progress amid derision, that we could bear with a few heroic qualities. In Bramwell's paraphrase of Elliotson, another time has come when we need take particular care not to "allow authority, conceit, habit, or the fear of ridicule to make us hostile to truth."

MECHANICS FOR MACHINES—NURSES FOR MEN

All the world is queer—including mental specialists. So one may, if he likes, merely note it as a striking example of psychiatric queerness if we, here and now, take emphatic issue with Esther Lucile Brown over, what must seem to many, her eminently sensible recommendation that all basic nursing schools in mental hospitals be abandoned, that affiliate and graduate programs be substituted—and that our not unlimited professional efforts be concentrated on giving basic nursing training in general hospitals only. Such a thesis could have been propounded only by one trained in the medicine of 20 years ago, who has no knowledge of the mental hospital.

Just how that program would work to the practical and serious detriment of our New York State mental institutions, if not of mental institutions generally, is adequately discussed in a review of Dr. Brown's current book, *Nursing for the Future,** in this issue of THE PSYCHIATRIC QUARTERLY. We wish here to take up certain wider considerations—concededly of less immediate practical import—but of the utmost significance for the broad future of the nursing profession and for the welfare of society as a whole.

The first of these wider considerations is that all the world *is* queer. Queerness in varying degree is a basic and unescapable human characteristic. Wherever her duties may lie, then, the nurse is dealing with queer people. To deal with them successfully, she must understand queer people. And the place to learn about them, to learn how to recognize queerness, how to tolerate it, how to manage it, is ideally in the institutions devoted to extreme queerness, the institutions for the care and treatment of those of us who have become too queer for social acceptance and social responsibility. There it may be studied in undiluted form, and understood. If these observations are factual and this reasoning logical it seems to us to follow that, not the abandonment of the mental hospital schools of nursing, but the establishment of more and better ones is the present need.

It may be a psychiatric eccentricity to hold that there is something rather special about our specialty. The specialist in cardi-

*Nursing for the Future: A Report Prepared for the National Nursing Council. By Esther Lucile Brown, Ph.D. Russell Sage Foundation. New York. 1948. (Reviewed on page 382.)

ology, ophthalmology or radiology has been too often bounded rigidly by anatomical, physiological and other established technical considerations. The specialist in psychiatry, with his allied professional workers, is bounded only by the limits of human behavior as a whole. Like the old-fashioned family doctor, his concern is with the general welfare of the patient before it is with specific pathology. We think medical care in general and nursing care in particular would benefit by more, not less, of such concern.

We all have known brilliant and successful men, including medical men and including even some psychiatrists, whose professional competence and skill were beyond question but who were endowed personally with all the sympathy, the social graces and the human compassion and understanding of a buzzard. Similarly, we all have known icily competent or neurotically-driven nurses, relentlessly swift and deft in the sick room, trained thoroughly in the physical nursing techniques, adept in the keeping of perfectionistic records and the scrupulous execution of orders—and as devoid of human qualities as a clinical thermometer. Psychiatry, like all other known human occupations, has its exceptional examples of practitioners of this sort and nurses of this character. But—and herein lies its special quality—psychiatry, with its primary emphasis on the understanding of human behavior and the human mind behind such behavior, with its aim the healing of the mind, is the least mechanical of all the medical specialties. We believe that, on the whole, there are fewer medical and nursing robots in the psychiatric field than in any other branch of therapy.

We submit that human sympathy and understanding are qualities demanded even more from the nurse than from the doctor. With the passing of the family doctor, the busy internist can—and sometimes does—consider current symptomatology briefly, write a prescription and wash his hands of the patient. The surgeon was never expected to do much more than cut and run; a good bedside manner might help his patients to recover but was no indispensable element of the surgical personality. Some of today's eye men know their patients only by their fundi, the chest men by their roentgenograms. But today's nurse is something else—and something else quite different.

The keeping of exact charts, the giving of prescribed medication, the taking of temperatures, the making of beds and such like tasks are not the sum of the nurse's activities. The nurse on floor

or ward duty has many more contacts with her patients daily than are accounted for by such officially-prescribed duties. The special duty nurse spends hours at a time with her patient; the private duty nurse often becomes a temporary member of her patients' families.

This is another way of saying that the greater part of a nurse's time is less concerned with strictly medical and surgical tasks than it is with personality problems. No amount of technical proficiency will make her a good nurse if she lacks understanding of such problems—still less if she herself is a personality problem. The basic training of the good mental hospital schools is adapted to help the nurse adjust in such situations. Much of it is, in fact and in theory, training in understanding one's self and other people. That the people the mental hospital student learns to understand are more than ordinarily queer people is all to her benefit in later professional work.

Most people, including most mental specialists, are too likely to forget that psychiatric problems are not confined to psychiatry. The nurse on a routine baby case may suddenly be confronted with a postpartum psychosis. Or a general hospital patient may become depressed or delirious—and delirium is a major mental syndrome. Far more common are the everyday annoyances of emotional disturbances and irrational reactions: The postoperative or cardiac patient is hypochondriacal; a convalescent exhibits food phobias which play hob with the doctor's carefully prescribed diet; a formerly alert housewife becomes listless and depressed; a sick child's mother is oversolicitous; the daily visits of the most-attentive relative prove upsetting to the patient. Or the nurse's own behavior or her own emotional reactions are matters for concern. An undesirable male patient becomes boorishly over-attentive; or an inconsiderate and ill-mannered family treat a nurse in a fashion to inspire paranoid reactions.

The nurse with thorough psychiatric training has seen all grades of psychoses, including deliria, before; she has some idea of what must be done, and some idea of the necessary emergency measures she must take in the meantime. She knows enough not to argue with hypochondria, phobia or any other manifestation of psychoneurosis. She will recognize the danger signs inherent in the prodromal symptoms of involutional melancholia before the patient jumps from the tenth story window. She understands oversolicit-

ous mothers and has seen enough of patients being disturbed by visitors to attach the importance due to such phenomena and see that her patient's doctor does something about it. She is familiar enough with the simple and forthrightly-expressed desires of the uninhibited psychotic patient to have poise in handling the bumptious, bed-ridden male. And she has seen enough paranoid psychosis to check her justifiable irritation at ignorance and bad manners before it builds up to a personal paranoid reaction.

It is a reasonable contention that basic nursing training in a mental hospital school is the best possible preparation for these and uncounted similar emergencies. They are emergencies which are encountered every day in general hospital nursing, public health nursing, industrial or private duty nursing. For any situation where knowledge of human behavior shares importance with good nursing technique, a sound psychiatric background is invaluable.

With all respect to affiliation programs, which we favor heartily and which the New York State hospitals have endeavored to make as comprehensive and as intensive as possible, we do not believe that real acquaintance with the emotional and personality disorders is possible to acquire in a short few weeks. We think it is the exceptional affiliate student who acquires anything like a real understanding of, and sympathy for, the mentally disordered. The average affiliate, totally ignorant of psychopathology and as much in the dark concerning the workings of her own mind, is lucky to end her affiliation without fear and suspicion of the mental patient.

As for graduate mental hospital study, there is little economic or other inducement for the ordinary uninformed nurse to make it. The nurse does not miss knowledge she doesn't know she lacks; psychiatric nurses receive but little higher pay than others. Why should a girl with her living to earn add another year of study to a three-year course which she supposes has already qualified her fully?

The suggestions that affiliate and graduate study be substituted for basic nursing education in the mental institutions are part of a wider educational program recommended by Dr. Brown and discussed adequately in this QUARTERLY's review of her book. We have here, however, some further general comment.

Dr. Brown apparently looks forward to the day when all registered nurses will have college—or perhaps even graduate—train-

ing to equip them for teaching, writing, research, administration and other advanced scientific and professional work. She makes suggestions for changes in the educational set-up which are best discussed elsewhere; and she apparently envisages two classes of nonprofessional nurses—practical and "graduate bedside" nurses —to do much of the work the registered nurse is now supposed to do.

If this means, as it seems to mean, a sharp division into a nursing "upper class" and a nursing "lower class," we think it undesirable, socially and economically. We believe that the girl who wants to do and is capable of doing bedside nursing deserves and should have the opportunity to advance professionally to teaching or administration, if she desires to do so. We think she will be a better teacher or administrator as a result. We see no good reason to limit such opportunities to persons willing and able to plan full college courses, or college plus graduate work, as a preliminary to undertaking nursing. We would think it more desirable, both socially and economically, to widen the educational opportunities for the girl who has already toiled through basic training. We want no part in a program which would require the prospective student either to undertake at the outset an expensive and time-consuming education or reconcile herself to drudgery with no hope of ever making professional advancement. At a time when the high cost of a physician's education presents a still unsolved problem to the medical profession, we see no point in adding a similar cost problem in the way of nursing education.

Neither do we advocate an alternative solution now being pressed by "Ole Doc Brady," the newspaper columnist, and a respectable number of other members of the medical profession. Dr. Brady would reduce the present three-year nursing course to two years to increase the number of graduate nurses. Dr. Brady contends that the third year of the present course is spent after all essential preliminary training is completed; and that the extra year is, in fact, a device to enable the training hospitals to obtain cheap nursing service from their students. We think the good doctor and his supporters are badly mistaken, that they are confusing training in the routine of bedside service with the higher skills which are demanded of a physician's professional assistant.

We join both Dr. Brady and Dr. Brown, however, in urging more training and better training for "practical nursing" or non-

professional nursing work. We in the mental institutions are particularly aware of the need and the value of the person skilled in practical nursing techniques but who is unable or undesirous of adopting nursing as a profession. These people, called "attendants," are "practical" nurses in the best sense of the word; and they are the backbone of our hospitals. We are heartily in favor of improving their competence and training by any practical means; but we do not conceive that this can best be done either by the Brady formula of reducing the whole nursing body to attendant status or by the Brown formula of so reducing the majority and requiring more expensive training for the rest.

The problem of male nurses has not been discussed here. It is a matter of vast importance, but one which calls for treatment by itself. Suffice to say here that the mental hospital schools have been pioneers in the training of male nurses and in the opening to men of a profession in which they have increasingly important roles.

We believe—to recapitulate—that the present nursing system is sound in its essentials and needs development and improvement rather than radical change. We know that, of the present nursing schools, those of the mental hospitals are or should be in the front rank. The excellent schools of the New York State hospitals are models of what such institutions can become. Our graduates, besides training in our own hospitals, have additional medical and surgical training during a year of general hospital affiliation; they graduate with a general training second to none and a specialized training in psychosomatic relationships.

For the nurse in general, it is our considered opinion that the opportunity presented by the basic mental hospital schools is the best nursing education offered today. Again, we feel, we need more, not less, of it.

BOOK REVIEWS

Nursing for the Future: A Report Prepared for the National Nursing Council. By ESTHER LUCILE BROWN, Ph.D. 198 pages. Cloth. Russell Sage Foundation. New York. 1948. Price $2.00.

This book is a necessity for nurses and doctors concerned with the patterns of nurse service and nurse education which are proposed to meet the needs of society today and in the second half of this century, but the implications of the report as applied to psychiatric nursing are questionable.

When Dr. Brown discusses schools of nursing in "specialized hospitals" one could wish she had either made a more thorough study of the problem or had omitted mention of it. She recommends that ways and means be found to abandon all basic schools in mental hospitals in favor of affiliate and graduate educational programs exclusively. Only the uninitiated, who are not familiar with the problem in the United States at large as contrasted with the program in New York State, could accept Dr. Brown's recommendations. New York State has 18 of the 28 schools mentioned by Dr. Brown in mental hospitals in the United States. A survey report for 1947 made by the American Psychiatric Association shows the total of registered nurses on duty in state mental hospitals over the country at large to be shockingly inadequate. New York State, which has conducted schools of nursing in connection with mental hospitals continuously for many years, showed the highest nurse-patient ratio in the United States, a rough average of one registered nurse for every 75.3 patients in the state's mental hospitals. (Typical states that formerly conducted schools of nursing in mental hospitals but discontinued them some years ago showed as a rough average one registered nurse to 167.7 patients in their state mental hospitals. Another state, typical of those which have never conducted schools of nursing in state mental hospitals, showed the alarming ratio of one registered nurse to 2,198.2 mental patients. (See *Mental Hygiene News*, February 1949.)

Superficially one might think that New York State's more favorable showing is perhaps due to better personnel policies. Closer examination, however, reveals that 74.2 per cent of the registered nurses on duty in the state's mental hospitals are graduates of the nursing schools there. Only 11.8 per cent are graduates of affiliated nursing schools, and the remaining 14 per cent of schools not connected with the department. In 65 years the schools of nursing of the New York State Department of Mental Hygiene have graduated a total of 7,678 nurses, of whom 3,038 are known to have been registered nurses in the state, and of this latter number 1,005 are currently on duty in the department. Since 1924 over 20,000 affiliate students

have received their psychiatric nursing education in schools of the department but as of October 31, 1948 only 160 of this entire number were on duty in hospitals of the department. Serious study may well be given to why so few affiliate students return to serve as registered nurses in hospitals of the department as against such a high percentage from the basic schools. The real significance of this situation is not yet understood.

Dr. Brown is suggesting that state mental hospital schools make their clinical facilities more widely available for affiliating students but fails to note that the New York State hospitals have for over 24 years taken affiliate students and currently give psychiatric nursing education to students from 83 of the 103 registered schools in the state in addition to the department's 18 accredited schools. Also, schools outside New York State are accommodated by this affiliation. Dr. Brown suggests that the best some hospital schools produce are nurses skilled in the care of patients according to standards of practice in their own parent hospital. As far from ideal as this may appear in certain instances, on the whole such schools have produced a far superior standard of nursing care for mental hospital patients than that which, to date, has been provided otherwise.

Dr. Brown declares that no school in a public hospital for the mentally ill that she has ever seen was nearly satisfactory either in her judgment or that of the persons administering it. "Some were appreciably better than others. They were maintained almost solely because they provided at least a modicum of nursing service more skilled than that attendants could supply." Certainly, Dr. Brown cannot mean to infer that the state mental hospitals of New York depend upon students for the care and treatment of patients? In the first place the student bodies of these schools would make little impression on the service loads of the large institutions where they are maintained. The students spend practically the entire first year in the classroom and are on the wards under close supervision for a limited number of hours only (averaging not more than 10 hours) a week. These students spend the entire second year at general hospitals, affiliating in medical nursing, surgical nursing, pediatrics, obstetrics, etc. The only reason New York State maintains these schools is that the students upon graduation return to serve in the mental hospitals as registered nurses.

Dr. Brown states that the graduate of the mental hospital school is "neither a nurse adequately prepared for general bedside nursing, as now practised in many hospitals, nor one fitted to deal broadly with the most crucial health problems of contemporary society." One wonders how many graduates of any schools are ready to deal broadly with the most crucial health problems of contemporary society.

Since the Department of Mental Hygiene must have graduated the greatest number of nurses from state hospital schools to date, New York State should be in a position to speak for the quality of such graduates.

Besides having produced over a thousand nurses who are principals, supervisors of all ranks, and head nurses in the hospitals of the department—without whom the mental hospitals would be destitute of registered nurses—there is a known galaxy of graduates through the years and in the present who have gone into hospital administration, become doctors (both men and women), have been pioneers in state hospital social service, occupational therapy and recreational therapy. Among the graduates are outstanding public health nurses in federal, state, and metropolitan work; clergy, both Catholic and Protestant, who hold that their experiences as student nurses have been priceless in helping them to understand personality problems; missionaries to the American Indians, to Alaska and elsewhere.

The department's schools of nursing have contributed materially to the nation's war efforts; 75 graduates served in World War I, 551 served in World War II. Of the 348 graduates serving in the army in World War II, there were 197 officers including 15 captains, three majors, and one lieutenant-colonel, army nurse corps. Of the 172 serving in the navy, there were 51 officers including 30 lieutenants and one lieutenant-commander, navy nurse corps. Other nurses served in the merchant marine and in the coast guard. (See *Mental Hygiene News*, April 1949.) At the time these women became lieutenant-colonel and lieutenant-commander, there was but a handful of women in this country of such military rank.

The dean of American psychiatry said of one graduate, "Such far-seeing, deep-seeing understanding of psychiatric problems of our patients is rare to find in one not medically trained, and her ability to inspire her whole corps of nurses with her own attitude gave me a feeling of assurance that we doctors are getting the maximum co-operation from our nursing staff."

Let these graduates be judged by those who have worked shoulder to shoulder with them in military service, in state mental hospitals, in psychiatric units and in the world at large where they have rendered faithful service without bid for fanfare or adulation.

The problem of the preparation and recruitment of nurses for the care and treatment of mental patients demands serious study and a sound, realistic analysis, which this reviewer feels Dr. Brown has failed to make. Admittedly she uses impressions and findings made many years ago and despite her lack of current study recommends remedies judged ineffective more than 15 years ago by authorities in New York State.

A point not to be overlooked is the fact that mental hospital schools have throughout the years taken the lead in educating male nurses who at long last are coming forward to a highly accepted role in the profession. These male nurses should undoubtedly make a major contribution to the program advocated by Dr. Brown relative to increasing the nation's public health program in mental hygiene and all other fields.

Throughout the rest of the report Dr. Brown presents an authoritative view of the situation in nursing education today. While assuming complete responsibility for the ideas expressed, she gives credit to some 2,000 persons for factual data, opinions, and reports. She had advisory committees of professional and lay personnel, and a workshop group of 19 graduate nurses organized by the executive secretary of the National Nursing Council under the chairmanship of Lawrence K. Frank, director of the Caroline Zachary Institute of Human Development. There were also three workshop conferences, in San Francisco, Washington and Chicago respectively, in which 1,250 schools of nursing participated. The author visited 50 of the "better" schools of nursing in private and public hospitals, and sought the general opinion of university faculties, public health agencies, and nurses. The United States Public Health Service receives special mention for help and counsel.

The over-all plan for the general hospital is accepted as visualized by the commission on hospital care set forth in the publication, *Hospital Care in the United States,* Commonwealth Fund, 1947. This regional hospital is conceived of as a medical teaching center, around which are grouped smaller community hospitals, themselves surrounded in turn by local health centers providing services to rural areas. To avoid duplication, all these services are integrated. The philosophy underlying all is maintenance of positive health for all persons.

With the increasing size and number of hospitals and agencies, the need is indicated of an enormous quantity of nursing care and greatly increased competence on the part of nurses. There are now too few nurses qualified to staff the clinical specialties, to plan, administer and supervise large and intricate nursing services, and to carry on teaching functions. The question is whether the requisite quantity and quality of nursing care can be obtained under present conditions in nursing education. Teaching and nursing are no longer the only careers open to women, to whom opportunities of higher education are almost unlimited. Financial gain and status influence young persons in entering the professions. Once within the professions, members tend to gravitate to places where opportunities for economic gain, pleasant living and professional and social recognition are favorable. Nurses, according to Dr. Brown's findings, do not have a very high or pleasant level of living today.

Dr. Brown reviews the criteria suggested by Dr. Abraham Flexner for judging whether an occupation has attained professional status. Nursing, itself, she feels, has moved far enough in this direction to be professional, but all schools cannot yet meet the test and this lowers the prestige of nursing. The central school of nursing and the junior college could be used to greater advantage in the education of the professional nurse. Both academic and professional training are essential and there are two patterns

of professional education, namely: (1) the integrated academic and professional curricula, in which experiments are needed to determine the inherent advantages, and (2) the purely professional nursing school program. Dr. Brown recommends that new schools in institutions of higher learning should be made autonomous units vested with the same status as other professional schools, and that existing schools, if not fully independent should be helped to become so. Requirements should be established for sound professional schools of nursing, the pre-clinical program should be done away with, and resources for the future examined.

Dr. Brown states: "We recommend that effort be directed to building basic schools of nursing in universities and colleges comparable in number to existing medical schools, that are sound in organizational and financial structure, adequate in facilities and faculty, and well distributed to serve the needs of the entire country." She suggests a balanced and reasonable attitude toward general hospital schools of nursing and sees the necessity of their continuance at least for an interim period until other adequate facilities have become established. Hospital schools designated as relatively good should make concerted effort through various types of experimentation to increase their vitality and social usefulness and to point the way to an ultimate solution of the hospital school problem. Distinguished hospital schools which have experimented with the five-year college course and have not realized the number of graduates hoped for, will perhaps drop back to semi-professional status or become part of a university program.

One of the major issues in Dr. Brown's report is the financing of schools of nursing. She recommends that all contributions and grants be made, not on the basis of the auspices under which schools are operated, but rather on the basis of educational standards maintained by individual schools. Dr. Brown further suggests that national nursing organizations make their first matter of important business the "long overdue" official examination of every school; that the list of accredited schools be published and distributed as far as possible in every town and city of the United States as an avowed substitute (except legally) for the inadequate lists of schools accredited by state boards of nurse examiners. Extensive nursing school data is available from the committee on the grading of nursing schools and the Division of Nursing of the United States Public Health Service. The National League of Nursing Education accredits schools; and, subsequent to the close of the war, two attempts to establish accreditation on a broader base have been made, one by the Committee of Interests in Accreditation and another by Raymond Rich Associates, the last-named suggesting that no fee should be charged because the purpose of accreditation is not primarily to serve the interests of the school but to serve the public and to improve the practice of the profession.

Dr. Brown refers to nonprofessional nurses as practical nurses and graduate bedside nurses and gives the opinion of her professional advisory committee that the training of the practical nurse should be reposed within the public educational system and more specifically within vocational or adult education units. She herself feels that substantial further experimentation is needed before any decision is made which would tend to set organizational patterns. A year of supervised practice for the practical nurse, in both home and in hospital setting under supervision of hospital and public health agencies, is suggested. Dr. Brown further holds that no system of training for practical nursing is likely to succeed unless funds are provided, and unless interest is aroused among members of the public, the educators, the nursing associations and the state boards concerned. Legal recognition is a requisite if the practical nurse is to feel much assurance or pride in her job, the author feels. She defines the practical nurse in accordance with the definition given by the joint committee on auxiliary nursing service and states that in her opinion in-service education should be improved, and good interpersonal relationships within the hospital itself must be built.

Dr. Brown found difficulty in securing a satisfactory definition of the graduate bedside nurse category. This reviewer did not get a clear idea of just what this group is or where it belongs in the plan proposed.

Dr. Brown feels that a more efficient use of nongraduate personnel will allow registered nurses to devote themselves to work requiring higher professional skill, such as supervision, administration, teaching, writing and research. The idea of building nongraduate and graduate nurse personnel into integrated service teams is just beginning with experiments in teaching hospitals. Wide experimentation, pooling and exchange of ideas, critical evaluation of accomplishment and, then, further testing on the basis of lessons learned are the only effective means of developing the program of integrated service teams. Emphasis is placed upon the role each has to play as a member of the health team.

Dr. Brown quotes the figures of the Women's Bureau of the U. S. Department of Labor estimation that the probable population of this country in 1960 will be 153,000,000 and that 500,000 to 550,000 nurses will be needed. In 1946 approximately 300,000 nurses were available. Nursing schools must graduate 45,000 a year from 1951 to 1960 if the estimate of 550,000 is to be reached. Appropriate nursing bodies should initiate planning on a state-wide basis for distribution of schools designed to meet state needs, and should initiate planning to be undertaken on a regional and nation-wide basis for those higher forms of nursing education that require fewer units but, consequently, greater selectivity of resources and location. Positive steps should be taken by the profession to create an atmosphere attractive to desirable recruits.

Dr. Brown on the whole has done a conscientious piece of work in relationship to her findings and in pointing out the path ahead for nursing education. One gains the impression that she is in accord with the philosophy that future experimentation and actual community findings must be considered all along the way and that if a modified or different pattern of nursing education should seem indicated, she would stand ready to support wholeheartedly whatever program might prove to be most realistic.

Man-Made Plague. A Primer on Neurosis. By WILLIAM G. NIEDERLAND, M. D. Formerly: Professor of Medical Psychology and Philosophy, University of Tampa. 304 pages, with index. Cloth. Renbayle House. New York. 1948. Price $3.50.

Man-Made Plague is an outstanding book among the many publications on psychoneurosis intended to bring one of the most worrisome problems of civilization nearer to the understanding of everyone. In literary, cultivated terms, the author analyzes and reconstructs the difficult problems of life. The presentation shows him to be an experienced teacher who does not burden the reader unduly with technical terms. He gives a vivid, clear description of the psychoneuroses, the threatening plague of our time, building up the picture from everyday observations and leading the reader from the borderline of the normal to the fully developed disease. The author has a profound knowledge of the world literature from which he draws examples, besides those from his own practice. As a faithful follower of Freud, Niederland describes psychoanalysis from its historical roots to its fundamental importance in the present day for the dynamics of psychoneuroses and their therapy. It is inspiring to follow his optimism and his belief in the fundamental soundness of our generation and the consequently good prognosis for mental recovery and psychic health of future generations. Refreshing is his fight against "façade-adjustment," against social lies, and against the present fashion of suggestive slogans which prevent people from facing facts.

Man-Made Plague can be highly recommended as an introduction to the fundamentals of psychoneuroses, as well as for public guidance.

Compulsion and Doubt. By WILHELM STEKEL. Translated by Emil Gutheil. Two Volumes, 630 pages. Cloth. Liveright Publishing Corporation. New York. Price $7.50.

These two volumes represent a translation of Stekel's antiquated *Zwang und Zweifel*, and show the propelling force of errors in science: Once established, a misconception rolls on—indefinitely. Stekel's theory (named by him "active *analytic* treatment") consists of bombarding the patient with half-analytic statements, hence is a suggestive type of psychotherapy with *no* connections with Freudian psychoanalysis. Stekel's use of the word

"analytic," is misleading. Since Stekel's approach is purely that of, more or less, superficial psychotherapy, the rather amazing statement is understandable: "four months are sufficiently long time to cure a severe compulsive neurosis" (p. 622). In the same category belongs: "Whoever cannot be cured in four months, cannot be helped (according to my experience) because he does not want to be helped" (p. 623). That is correct for suggestive psychotherapy, but has, however, no bearing on real psychoanalysis. Moreover, Stekel's statement is based on the historically explainable misconception that "finding the reason" for neurosis, is the curative factor, or—at least—the answer to the alchemistic riddle.

The book is out-dated, out-moded, out-distanced. It is also argumentative, quarrelsome, boisterous; it repeats Stekel's personal grievances against Freud—in a very one-sided procedure. It is basically no more than a document of interest to the historian of analytic split-off groups.

The translator tried to bring the book up-to-date by a longer preface, without achieving his aim. He is obviously not informed about newer analytic findings and literature, either on the topic of criminology, or of obsessional neurosis (Federn, Stengel, Bunker, Bergler). The last analyst claims that the superficially so-pronounced aggression of obsessionals is but pseudo-aggression, covering as inner defense deeper, repressed psychic-masochistic conflicts. Should this be verified, the basis on which older theories rest, becomes obsolete. In any case, an "analytic" summary (as presented in the preface) written in 1948, which does not take into consideration newer findings and merrily works on the basis of the formulations of 1908—and even these watered down—can justifiably be called—out-dated.

How Psychiatry Helps. By PHILLIP POLATIN, M. D., and ELLEN C. PHILTINE. With a foreword by Nolan D. C. Lewis, M. D. 242 pages, including index and appendix (table of state psychiatric services, list of V. A. regional offices, list of national organizations and agencies equipped to give information re psychiatric facilities, addresses of branches of American Psychoanalytic Association, etc.). Cloth. Harper & Brothers Publishers. New York. 1949. Price $3.00.

This little volume is outstanding in the flood of more or less qualified books of information on the most actual and urgent problems of normal life—mental health and disorders. Its competence cannot be better defined than by the concluding sentence of the foreword by Dr. Lewis: "It will provide the reader with an authentic introduction to a field which is now the concern of everyone who is trying to live and fit himself into his environment as successfully and comfortably as possible."

As the work of Dr. Polatin, a member of the New York State Psychiatric Institute medical staff, the book represents an authoritative up-to-date con-

ception of mental disorders and a compilation of experience in dealing with them. The outstanding feature of this publication, however, is the mode of presentation for which the co-author, Ellen C. Philtine, the novelist-wife of Dr. Polatin, is probably responsible. Technical terms are avoided or explained to make the book understandable for everyone. It answers in plain language such questions as: What are the methods and bases of treatment, what are their chances and limitations, where and how can one get advice and help?

Apart from this the book will be helpful to the psychiatrist in dealing with relatives of his patients. It deserves wide distribution.

Medical Etymology. By O. H. Perry Pepper, M. D. 263 pages including index. Cloth. W. B. Saunders Company. Philadelphia. 1949. Price $5.50.

Dr. Pepper, professor of medicine at the University of Pennsylvania, has compiled this book for students of medicine, dentistry and nursing. The volume fills an unquestioned need. It is divided in very handy fashion into the principal medical specialties with brief introductory remarks concerning the terminology used in each.

The reviewer may perhaps be forgiven for taking issue with Dr. Pepper's remark that "the terminology in this subject [psychiatry] is not extensive, difficult or interesting." For its extent we would refer him to Hutchings' *Psychiatric Word Book* and Hinsie and Shatzky's *Psychiatric Dictionary*. For its interest we reserve the right to our own opinion.

The widespread bastardy of medical terms has long been deplored. With the current example of "electroshock" in evidence one sees little prospect of reform. Dr. Pepper has written an excellent students' guide to the mixture of anything from Anglo-Saxon to Greek which makes up our scientific vocabulary. For the student's benefit he has left, at the end of every vocabulary section, space for the reader to enter his own terms. The practitioner as well as the student should find this a handy and a very useful manual.

Olivia. By Olivia. 135 pages. Cloth. William Sloane Associates, Inc. New York. 1949. Price $2.75.

Olivia writes of years ago when, as a 16-year-old girl, brought up in a reserved Victorian home in England, she spent a year at a small finishing school near Paris. The innocence of ignorance became dispelled, and strange new worlds were opened up to her as complex inner strivings related themselves to the beautiful head mistress and revealed themselves as they came increasingly to life. This story of the awakening of Olivia's first love, with its profound upheaval of her entire being, is woven delicately but with great force, as if the years had taken nothing from the ecstatic and anguished re-living.

Contributions to Psycho-Analysis, 1921-45. By MELANIE KLEIN. 390 pages. Cloth. Hogarth Press. London. 1948. Price 21 Engl. S.

Melanie Klein is a lay analyst, living in London, whose theories, in wide divergence to those of Freud, resulted in a split between Freudians and "Kleinians" in the British Psycho-Analytic Society. Her new book contains 18 relatively unrelated papers, all but one previously published.

The material is interesting, partly instructive; it presupposes, however, great familiarity with analytic literature. Otherwise, the reader will only get confused and be incapable of differentiating between valuable clinical observation and exaggerated claims as to its universality. The main progress in Klein's theories has been working out of early infantile aggressions and resulting fears. On the debit side, is neglect of psychic masochism, unprecise formulation, and an attempt to build the whole structure of the personality on the basis of *one* correct observation.

Language and Language Disturbances. Aphasic Symptom Complexes and Their Significance for Medicine and Theory of Language. By KURT GOLDSTEIN, M. D. 374 pages, with 11 figures, 25 case records, extensive bibliography and cross-index. Cloth. Grune & Stratton. New York. 1948. Price $8.75.

The author, whose lifelong studies (since 1905) on brain injuries and on aphasia already belong to the classical fundamentals of the physiology and pathology of the central nervous system, presents here a text which passes the limitation of the book's title and the subject of aphasia as encountered by the physician, and goes deep into biologic, psychologic and philosophic problems of language. New terminology deriving from "philosophic reasoning" and introduced to interpret the new approach to the problem of aphasia is defined in Goldstein's previous book, ***The Organism*** (American Book Co., New York, 1939), which can be considered a summary of his comprehensive approach to scientific problems. He emphasizes that "empiric research and philosophic reasoning" become inseparable methods for grasping biological problems.

Analyzing the origin of symptoms in brain damage the author defines his "organismic" approach to brain pathology in general and to aphasia particularly in antithesis to the "so-called classic theory which is based on an atomistic concept of the organism." While the classical theory explains language as a conventional tool derived from expressive movements and developed to meet the needs of communication between men, the author concludes that "language is a means of the individual to come to terms with the outer world and to realize himself." By differentiating "concrete" from "abstract" language, two different groups of aphasic symptom complexes are conceived of.

This approach—in contrast to the atomistic route—may permit explanation of the "concept of meaning" by *functional* interpretation of the phenomena observed in brain damage.

Discussion of the problem of localization of language and of language disturbances promises, under the organismic approach, a more satisfying solution than the one offered by theory based on postmortem findings only —which leaves large gaps between clinical signs and pathologic data.

A survey of the various forms of change of language in general is given for deductive as well as didactic reasons and is supported by detailed instructive examples, illustrations and description of tests.

In the second part of the book the reader is guided systematically by numerous well-selected case records from the more general problems of the subject to the special pathology of the different clinical pictures of language disturbances. A concluding short chapter on treatment of speech defects gives information and stimulation in this very important field.

An extensive, almost complete, bibliography of the last three decades and a well-arranged index contribute to make this important publication a standard work. This book is as valuable for physicians as for linguists and for everyone who has educational interest in the development of language.

Sex and the Statutory Law. By Robert Veit Sherwin. 74 pages Cloth. Oceana Publications. New York. 1949. Price $2.50.

Robert Veit Sherwin, New York attorney, attempts here to collect and report briefly on the various laws covering criminal sex behavior in the 48 states. The laws, as the author notes, have not advanced in accord with scientific progress in the general field of human relations.

The interest of the psychiatrist in the problem may be indicated by a question from the author's preface: "Does the Court's judgment always coincide with the doctor's prescription?" Study of the volume will reveal quickly enough how generally antiquated our statutes are, and how inadequate they have been for the protection of society.

This is a very valuable handbook for the psychiatrist who deals with sex abnormality as a medical problem, as well as for the lawyer who must approach it from the legal point of view.

Trial and Terror. By Lawrence Treat. 248 pages. Cloth. William Morrow & Co., Inc. New York. 1949. Price $2.50.

This is an excellent mystery story of the psychological type. The characters are well done; the motivation is excellent, and the plot good.

The High Cost of Vengeance. By FREDA UTLEY. 310 pages. Cloth. Henry Regnery Company. Hinsdale, Illinois. 1949. Price $3.50.

Some of us who are old enough to remember, but still young enough for naïveté, were under the impression that the manifest crimes of Nazi Germany would prevent such a tide of "poor abused Germany" literature as rose after the first World War. The new tide, however, is well under way. Freda Utley's book is another contribution to it. Miss Utley herself has had a record as a liberal and she lived for a time in Soviet Russia. Today, however, she concludes—in the now familiar pattern of the apologist for the Third Reich—that the Nuremberg trials made "a mockery of American justice," that the Germans never succeeded "in perpetrating worse atrocities than our obliteration bombing of whole cities," and that "Hitler's barbaric liquidation of the Jews has been outmatched by the liquidation of Germans by the 'democratic, peace-loving' powers of the United Nations." Her point of view is very well shown by a quotation from the *London Times* of July 16, 1870 in which France is accorded the whole blame for the Franco-Prussian War. How intelligent and well-intentioned men and women of the democratic countries can reach or hold such opinions as Miss Utley's would make an interesting psychological study.

Suicide and the Meaning of Life. By MARGARETHE VON ANDICS. 198 pages. Cloth. William Hodge & Co., Ltd. London, England. Distributed by The Sherwood Press. Washington, D. C. 1947. Price $3.00.

In this book Dr. Von Andics, a medical psychologist and a student of the late Professor Alfred Adler, gives us the results and the conclusions at which she arrived after interviewing, at a clinic in Vienna before World War II, a large group of persons who had made attempts at suicide. Those mentally ill and those who were under the influence of alcohol at the time of the attempt were excluded.

Just what causes a person to feel that life is no longer worth living varies with each individual, but Dr. Von Andics claims that all who attempted suicide were basically emotionally unstable; that a large percentage had experienced unfavorable childhoods; that loneliness with a lack of someone upon whom to unburden oneself; illness causing unemployment and deprivation from society with a fear of the future with its uncertainties rather than the loss of material things, were the latent fundamentals of suicide. Other factors were loss of reputation, sexual maladjustments leading to isolation, and the inability to make an adequate substitute for an emotional loss. "It is the strength or the weakness of his character and the inexhaustibility or poorness of his emotional reserves which enable the one to move mountains, whilst the other stumbles over shadows and believes that he is unable to rise again. As far as my studies went, the only

psychological or psycho-physical correlate to this weakness of the emotional base I could ascertain, was lack of ability to form friendships or associations and general sub-normal sexuality. . . . the human being does not exist for his own sake and for the sake of his well-being, he wants to exist for somebody and for something. But the individual also wants his achievements to be accepted and acknowledged, and that somebody and something should be there for him in return. What is desired is an equilibrium of a reciprocal 'intentionality'; I for somebody and some thing—somebody and something for me. The individual approaches people and things in the world with a readiness to render services, and a need to see them appreciated. He desires to be rooted in the persons of his parents, his sexual partner, and his children, and in the past, present and future of the process of life; he wants his place to be defined clearly by love and work."

Sex and Religion. By PIERRE GORDON. 320 pages. Cloth. Social Sciences Publishers, Inc. New York. 1949. Price $5.00.

The English title of this book is misleading. A literal translation of the French original would be "Sexual Initiation and Religious Evolution," which is a succinct statement of its topic. It cannot be understood without reference to the theory which Professor Gordon holds concerning the ritual of the deluge and the religion of the "Great Mountain"—which "was the birthplace of the ritual of death and resurrection which spread all over the earth." The religion of the "Great Mountain," spread far and wide by missionary "civilizers," developed initiation rites when it made contacts with "the feminine and totemic" and the "feminine and pastoral" civilizations.

The fact that these observations are not generally accepted cannot altogether destroy the interest or value of this work which contains much important anthropological data and many penetrating interpretations. The student of the human mind will find it stimulating. As an instance of the author's bias, one might note the following remark: "It is always dangerous to mix sex with spirituality, as women are readily inclined to do whenever they lack firm guidance to keep on the right path."

19 Stories. By GRAHAM GREENE. 247 pages. Cloth. The Viking Press. New York. 1949. Price $2.75.

Written at long intervals between 1929 and 1948, some of these stories originally appeared in various magazines, while eight of them were published by the Cresset Press in 1936 in a volume called *The Basement Room*. The author is self-admittedly conscious of the defects of these stories which he presents as the by-products of a novelist's career. Several are good, several passable, but for the most part the plots are not remarkable, do not hold interest, or they are unconvincing, far-fetched and with unsatisfactory conclusions.

Duke. By HAL ELLSON. 170 pages. Cloth. Charles Scribner's Sons. New York. 1949. Price $2.75.

The fictionalized autobiographical account, based on fact, of a 15-year-old leader of a 'teen-age gang in Harlem, this book depicts the sordid living conditions that have been breeding the more than 100 large and the very numerous smaller gangs in New York City. "Gang members and gangs," says Mr. Ellson, "are part of a sickness, the sickness of a society which can blame only itself for what has already happened." In sections where one has to belong to a gang for one's safety, where one finds acceptance in a world that otherwise rejects, where it is the height of social distinction to belong, gangs emerge, and thousands get their start in lives of crime.

Members range into the hundreds in the extraordinarily well organized larger groups, with their president, vice-presidents and war counselors, their ministers of peace, captains, "brains" and envoys, their seniors, juniors, midgets and tots, their girl spies and decoys and the rank and file; but the general principles are the same in all; they follow racial patterns for the most part; they band for self-protection; they operate brothels; they rob; they wage "wars" in which killings take place; and they otherwise terrorize neighborhoods and defy police. Duke, colored Spanish president of the Mighty Counts, sensitive to his "sissy" nail-chewed hands and to his skin and nose, with his grandiose "big shot" strivings and equally marked letdowns, conforms to type. Bolstered by marijuana and alcohol, he and his gang distribute drugs, run houses of prostitution, take part in hold-ups and gang wars in which knives and home-made guns injure and kill. In the end Duke himself kills.

Psychology and Philosophy of Truth. By FREDERICK E. EASTBURG. 78 pages. Cloth. Bruce Humphries, Inc. Boston. 1947. Price $2.50.

Frederick E. Eastburg, author of *Psychology and Philosophy of Truth,* is in the philosophy department of the University of Illinois. His small volume is almost an outline of the various contemporary schools of psychology and philosophy. It also deals briefly with the unity of society and the aspects of human nature. The author concludes this rather uneo-ordinated book with viewpoints and predications that are essentially assumptions.

Despite such an imposing title as *Psychology and Philosophy of Truth,* this book is simply written, interesting in spots, and possesses a commonsense perspective. It adds little, however, either to the fields of historical ethics or to the systems of contemporary psychology and philosophy. There is a meager glossary of terms, which also adds very little to the book's value.

The Normal Sex Interests of Children. From Infancy to Childhood. By FRANCES BRUCE STRAIN. 210 pages. Cloth. Appleton-Century-Crofts, Inc. New York. 1949. Price $2.75.

The author of this book is well known to those interested in child guidance and mental hygiene by her publications, *Being Born, Teen Day,* and *New Patterns in Sex Teaching.* The volume presented here is a valuable and excellent contribution to child guidance literature, offering a guide toward understanding libidinal and psychosexual development in the young. In so doing, it imparts the insight into their own libidinal attitudes needed by those adults entrusted with the care of children, so that they are enabled to face tactfully the sex life of young children. Thus it aids in the avoidance of traumatic and catastrophic situations and in the creation of opportunity to encourage normal growth toward libidinal maturity—for the leaders as well as those they lead.

This book can be highly recommended. It is well written and practical. Parents, teachers, social workers and all those interested in making this world a better place to live in can benefit from it—provided they have open minds.

Psychiatry for the Millions. By BENZION LIBER, M. D. 307 pages including glossary and index. Cloth. Frederick Fell, Inc., Publishers. New York. 1949. Price $2.95.

Psychiatry for the Millions is only another drop in the flood of books intended to enlighten the laymen on mental diseases. It is unfortunately neither a clearly written textbook nor a volume which will help the untrained reader to conceive a fair understanding of the problematic complexity of the healthy and the sick mind. The author has packed the text with case histories of rather dramatic therapeutic results. Less would be more!

The chapter on "Principles of Prevention" starts: "In order to stay mentally healthy it is desirable, but not absolutely essential, to be in good physical condition. In that respect regular natural evacuation, without the use of purgatives, is the greatest necessity. . . . Let no one forget that constipated bowels often mean constipated minds. . . ."(p. 288). "Absorb the world, drink it in, make it your own—it is yours—as far as the most distant star and from the tiniest insect, from the microscopic being. Live it! But preserve a perspective so that you also live it within yourself. Live outside, live inside yourself. . . . Live in greater depth. Live longer by living more intensely. . . ." (p. 295). And the book closes: "Do not be afraid of death. It is none of your business." Psychiatry for the millions?

Memoirs of Alfred Rosenberg. By ALFRED ROSENBERG. With commentaries by Serge Lang and Ernst von Schenck. Translated from the German by Eric Posselt. 328 pages. Cloth. Ziff-Davis Publishing Company. New York. 1949. Price $4.00.

Alfred Rosenberg wrote his memoirs in the cell from which he went to the noose in Nuremberg. He blames Hitler, Bormann, Goebbels and Himmler for their "betrayal" of what he considers the ideals of National Socialism. Rosenberg is generally credited with fathering the ideology of the Nazi movement. "Undoubtedly of mixed ancestry," as the commentators on this document remark, Rosenberg was the inspiration—among other things—for the movement which led to the murder of the Jews. He never recanted. At the end of his political testament he declared "National Socialism . . . was the noblest of ideas to which a German could give of his strength."

The United States government neither warrants nor disclaims the authenticity of the document from which the published selections were taken. There seems no reason to question it; and, authentic or not, this book is a most important study of the mentality which makes a Fascist.

Modern Trends in Psychological Medicine. Noel G. Harris, M. D., editor. 439 pages. Cloth. Paul B. Hoeber, Inc. London. 1948. Price $10.00.

This book, written by 18 authorities, contains much elementary material, but also brings up many problems and asks many questions, quotes the views of numerous investigators, makes reference to recent literature and to work as yet unpublished. It points out the still numerous gaps in our basic knowledge, emphasizes the need for further research and stimulates in this direction. It brings psychological medicine closer to general medicine and seeks still closer unity and understanding. There are chapters on the physiology of emotions and on the causative factors in mental disturbances, on the etiology, treatment and prognosis of psychopathic personality, and on electrophysiology and diagnostic methods. Principles of mental hygiene are discussed, along with character formation in relation to education, child guidance, and marriage and family life. Chapters on treatment include one on psychotherapy and another on modern and social group therapy, while under the heading of recent techniques in physical treatment, there is discussion of pharmacological abreactive techniques, leucotomy, continuous narcosis, convulsive therapy, insulin, hyperpyrexia and general physical methods. There are separate chapters on personnel selection and on mental hygiene in industry; and the concluding one deals with psychological medicine and world affairs.

The 1948 Year Book of Neurology, Psychiatry and Neurosurgery. Neurology, edited by Hans H. Reese, M. D., and Mabel G. Masten, M. D. Psychiatry, edited by Nolan D. C. Lewis, M. D. Neurosurgery, edited by Percival Bailey, M. D. 750 pages including index and index to authors, 140 figures, tables and bibliography. Cloth. The Year Book Publishers, Inc. Chicago. 1949. Price $5.00.

The 1948 *Yearbook of Neurology, Psychiatry and Neurosurgery* is as indispensable as the previous issues. The distinguished editors have succeeded in making this compilation of reviews of the world-wide specialized literature a conclusive guide by the introductions and the critical notes which reflect their authoritative experience without influencing the objective reviewing. An immense amount of research work, otherwise not easily accessible and at hand, is critically reviewed. Arrangement, printing and reproduction of illustrations are as always in the yearbook above criticism.

Thematic Apperception Test. Thompson Modification. By CHARLES E. THOMPSON. 11 pages (manual) and 30 plates (test). Harvard University Press. Cambridge. 1949. Price 50 cents (manual) and $5.00 (test).

This is a modified series of TAT plates and a manual for administration designed for Negro groups. Dr. Thompson was led to devise these when he noticed "a dearth of material in the responses to the separate pictures by Negroes." He concluded that the Negro had difficulty in identifying with the white persons shown in a number of the plates, a belief which was strengthened by experiment.

In the Thompson TAT (T-TAT) 23 of the original pictures have been adapted for use with Negro groups by introducing Negro figures instead of white. Six pictures are unchanged; one has been omitted and a blank card is included. The rationale for this modification is the same as that which has dictated construction of the original cards for administering the test according to sex. That is, identifications were found to be better if most cards contained figures of the same sex as the subject. The Thompson modification extends this principle to reflect the group culture of the individual as well. The idea is a promising one. The modified cards have just made their appearance and psychologists will await reports of their wide testing with great interest.

Love Is the Liberator. By GLANVILLE OWEN MUSCHETT. 113 pages. Cloth Benevolent Books. New York. 1949. Price $2.50.

This is an effort, from the religious point of view, toward what we are accustomed to call mental hygiene. It is not adapted for psychiatric purposes but may well be valuable to people with appropriate religious orientation. That orientation is well indicated by the title "Love Is the Liberator" which is a quotation from Mary Baker Eddy.

Mrs. Party's House. By CAROLINE SLADE. 289 pages. Cloth. The Vanguard Press, Inc. New York. 1948. Price $3.00.

Mrs. Party's house is a house of ill fame. Caroline Slade's tale is the story of how Mrs. Party came to run it by accident and of how she came to feel that by keeping her girls free from disease, her place what might be called "respectable" and her patrons free from evil consequences, she was doing a humble public service. If a girl intended to be a prostitute, she was going to be one and Mrs. Party would see to it that those in her house were as professionally competent and as happy as possible. Mrs. Party was fond of her girls; she was always glad if one married: she listened to them, comforted them, helped care for their children. Her best friend was a priest, and the police liked and respected her.

This reviewer has never heard of a "madam" like Mrs. Party, but he would defer to Mrs. Slade's social work and welfare experience in agreeing that there might be one. Mrs. Party is, at least, a plausible and a psychologically-sound character and this story of her doings is of great interest.

The Borgia Testament. By NIGEL BALCHIN. 312 pages. Cloth. Houghton Mifflin Company. Boston. 1949. Price $3.00.

This is an apologia for Cesare Borgia, written in the form of a last testament from the castle of San Angelo, when he had every reason to believe he would be delivered only by death. Nigel Balchin's reconstruction is an informative study of the Italy of the Renaissance where the Pope was a temporal prince as well as the Vicar of Christ, and where the Papacy was openly bought and sold. It was another world than ours, brilliant, corrupt and in the last stages of the decadence which preceded the rise of modern Europe.

Balchin has chosen to write about a brilliant figure of that day. This reviewer thinks he does not succeed in bringing either Borgia or his times to life, and, as an apologist, Rafael Sabatini did a better job. Considering that Machiavelli is supposed to have based *The Prince* on the career of this amazing son of the Pope, Balchin seems to have missed the chance to make a noteworthy psychological study.

The Burnished Blade. By LAWRENCE SCHOONOVER. 371 pages. Cloth. The Macmillan Company. New York. 1948. Price $3.00.

This is conventional high romance of the days following the Hundred Years War and just preceding the fall of Constantinople. There are some vivid pictures of Europe's stirring just before the Renaissance and of Trebizond, which briefly survived the eastern empire as the last remnant of Graeco-Roman civilization. There are details of the burning of Joan of Arc and of an impalement which should gratify any algolagniac.

Crime and the Mind. By WALTER BROMBERG, M. D. 199 pages. Cloth. J. B. Lippincott Co. Philadelphia, Pa. 1948. Price $4.50.

In his preface the author states, "The material in this volume was developed from clinical study of hundreds of convicted criminals. Its emphasis is on the phenomenology of crime, the psychology of the offender and the emotional interrelations between the latter and his society. Because crimes are committed preponderantly by legally sane individuals, albeit of distorted personality, the accent in this book has been placed on the large group of psychopathic, neurotic, emotionally immature and clinically normal individuals who have been involved occasionally or persistently in criminal activity. The viewpoint expressed herein and the selection of material and interpretations, both psychiatric and sociologic, are the sole responsibility of the author."

Part One, "The Legal and Social Environment of the Criminal" states that the most plausible approach to the understanding of the criminal tendencies is through psychological medicine which shows the offender to be a complex personality living in society, with which he is constantly at odds. This statement is accepted as correct by almost everyone but we are most interested to know why the criminal is at odds with society. We know that we all are potential criminals, but that most of us refrain from criminal behavior because we have developed emotional patterns which do not need satisfaction through aggressive criminalistic behavior. We know all this, and ask, why. When we make mistakes or do something for which we have been embarrassed, we seek excuses and project the blame upon others or upon things. The criminal does that also. We know that the law-abiding citizen has learned to control his antisocial impulses while the criminal has failed in his control even though the criminal and the law-abiding citizen grew up under the same laws and the same idealistic system of religion. We know all this and still ask why. We all agree that psychological, psychiatric and psychoanalytic research is our only hope in the understanding and the treatment of the criminal, but we all too well realize that mental mechanisms function the same in the normal as in the abnormal, that the milieu of the criminal is more often than not the same as that of the law-abiding person and that whether behavior is normal or abnormal, is a matter of degree rather than difference. But we still ask why some persons are criminal. If a book could be written to answer our question there would be no need for a second book. Dr. Bromberg's book is not that chosen book; but it is well written and improves our orientations in the reasons behind criminal behavior. He describes to us the present functions of psychiatry in law courts, in probation courts and in prisons.

In Part Two, Dr. Bromberg excellently defines the individual criminal and outlines the mechanisms behind each kind of criminal behavior. The paranoid psychopath, the schizoid psychopath, the aggressive psychopath,

the psychopathic swindler, the sexual psychopath, all types of psychopathic personalities with criminal tendencies, are fully described. Criminal behavior is apparently more prevalent in the psychopath, but Dr. Bromberg emphasizes another important type, the neurotic offender. In addition, the author calls attention to the close association of emotional immaturity and criminal behavior in all groups of criminals.

After these excellent descriptions, it is perhaps unjust to criticize the final chapter, "The Cure of Crime," since so little is now known relative to treatment of the criminal. However, Dr. Bromberg does a fine job in expressing his opinions and reviewing methods of treatment now in use, so that in a final analysis the book deserves high praise.

Brief Psychotherapy: A Handbook for Physicians on the Clinical Aspects of Neuroses. By BERTRAND S. FROHMAN, M. D. 265 pages. Cloth. Lea & Febiger. Philadelphia. 1948. Price $4.00.

Dr. Bertrand S. Frohman gives a clear and easily understood description of the clinical aspects of the neuroses, in his *Brief Psychotherapy*. As a handbook for physicians, it is designed to aid the general practitioner as well as the psychotherapist in detecting, diagnosing and handling the psychological factors which are ever present in the various functional disorders encountered in daily practice.

The book provides helpful information, thought-producing case histories and practical advice on treatment. The problem of neurosis is approached from three angles: that of the physician, the patient and the psychotherapist. (The book contains a special glossary of terms for lay readers.) The text is easy to read and easy to understand. To facilitate the physician's task, the author has organized this study of the neuroses into diagnosis, etiology and therapy.

The point of view throughout *Brief Psychotherapy* is psychosomatic. The author realizes that a vast library already exists on the neuroses, but feels that this book may add to it because (in his words), "It serves its intended purpose of practical, ready reference." Based on this criterion, the book is adequate; considered on other grounds, however, it lacks comprehensiveness and decisiveness. Yet, the author's main argument is a fundamental one: He says that physicians too often overlook and neglect psychic troubles in their treatment of organic and physical difficulties. The physician, according to Dr. Frohman, must come to recognize unhesitatingly the common neuroses; the physician's examination of a patient is often thorough, the author notes, but the case history is woefully inadequate. The sections on the contributions of Freud, Jung, Adler, Stekel, and particularly Korzybski, help make *Brief Psychotherapy* additionally informative and worthwhile.

Studies in Psychosomatic Medicine. An Approach to the Cause and Treatment of Vegetative Disturbances. By FRANZ ALEXANDER, M. D., and THOMAS MORTON FRENCH, M. D., with 18 co-workers. XIII and 568 pages with extended bibliography and cross-index. Cloth. The Ronald Press Company. New York. 1948. Price $7.50.

This volume is a collection of papers published previously in different scientific periodicals. It represents the pioneer work done by the staff of the Chicago Institute for Psychoanalysis in the field of psychosomatic medicine during the past 16 years. As the psychosomatic approach is, more and more, influencing and directing medical thinking and teaching, and as the literature is scattered, this collection of studies is very welcome.

The volume is organized systematically, is divided into an introductory part, with articles on general theoretical, psychological and problematic aspects, and seven special parts dealing with the different organ systems (gastro-intestinal, respiratory, cardio-vasculary, endocrine, metabolic, etc.). Each part contains several contributions of different authors which are amply illustrated by case records. An extended bibliography to each chapter and a good index add to the usefulness of the volume as a textbook as well as a reference work.

Parables. By FRANZ KAFKA. 127 pages. German-English. Cloth. Schocken Books. New York. 1948. Price $1.50.

The Diaries of Franz Kafka, 1910-1913. Edited by Max Brod. 345 pages. Cloth. Schocken Books. New York. 1948. Price $5.75.

Franz Kafka. An Interpretation of His Works. By HERBERT TAUBER. 252 pages. Cloth. Yale University Press. 1948. Price $3.75.

Throughout the *Parables* runs a single theme—man's groping toward self-acceptance and a level of higher being.

As though to trace the struggle back to earliest civilization, the book is divided into three sections, "Israel," "Hellas," "Occident." Myths produced by these eras become symbols of man's endeavor to rationalize his own conscience.

Thus in "The Coming of the Messiah," Kafka writes, "The Messiah will come as soon as the most unbridled individualism of faith becomes possible —when there is no one to destroy this possibility and no one to suffer destruction; hence the graves will open themselves." That is to say, The Messiah, a heavenly state of existence, peace, will come when in each of us, belief in our worthiness becomes sufficiently strong and free to prevent demoralization, not only of self, but of others. Then the graves, the death places of our creative forces, will open.

The manner of writing breathes power and beauty. "Israel" has majesty, "Hellas" humor. The "Occident," less colorful than the other sec-

tions, is more obscure; in this way, perhaps, expressing the added confusion imposed upon man by complex modern civilization.

In *The Diaries of Franz Kafka,* fantasy mixes with reality. Expressions of inner torment intermingle at random with anecdotes of friends and experiences. Tremendous imagination envelops all. Irresistibly, the reader is drawn on as these fragments of a mind grow into the personality of a man. In the pages of his diaries, Franz Kafka lives.

Mr. Tauber's "interpretation" presents a challenge. To those unacquainted with Franz Kafka's works, his book offers not only an introduction, but through its detailed, well-defined study of these works, a guide for individual interpretation. Those already familiar with Kafka, will find an absorbing basis of comparison for their own concepts.

140 Million Patients. By CARL MALMBERG. 242 pages, including 8 figures, 12 tables, references and index. Cloth. Reynal & Hitchcock. New York. 1947. Price $2.75.

This book, written by a former public relations adviser and information specialist for the U. S. Public Health Service, is a courageous and frank analysis of the "sickness of medical practice and hospital affairs, of the potentialities of medical care, and of the needs of the population with regard to them.

Malmberg gives, in a systematic study, a "health inventory" of the United States, based mainly on the reports of the Bureau of the Census, on the Selective Service System reports and on the famous Pepper Committee report. The author surveys the cost of sickness and gives—in his opinion—a revealing review of the dark ways of disintegration of the medical ethics of our times which lead to the unfortunate "industrialization" of medical practice to the disadvantage of the population in need of adequate medical care. Fee-splitting between physicians, or between specialists and industry (e. g., optical and other supply industries) and other disgraceful procedures under "purse indication" rather than medical indication are adduced by documentation. Prescription padding and the general unsalubrious state of the "drug-business," as contrasted with drug-dispensing by the scientifically-trained pharmaceutic profession, are branded.

Malmberg's inquiries cover the prevalent hospital type in general and put it to critical discussion, with reference to, and in comparison with, the quantitatively inadequate, outstanding hospitals which are the pride of American medicine and which became the models for hospitals all over the world.

This compilation of disgraceful facts only is no pleasant reading. But the extensive references reveal that the qualified and most concerned authorities are well aware of the "sickness" of the profession and of the hospital system. They also show that the struggle for a change and for an

adequate "therapy" is in the making.

It is highly controversial whether the "therapy" proposed by the author is really so simple and adaptable. History and comparison teach that overcentralization in such delicate problems might be very deleterious in many respects. The solution might lie in a more polyform evolution and in *educational* development.

However Malmberg's book—though one-sided—deserves a wide distribution as an informative text for the medical profession and health authorities. For the layman, it might be even more confusing than helpful.

The Sky Is Red. By GUISEPPE BERTO. 379 pages. Cloth. New Directions. Scranton, Pa. 1948. Price $3.50.

This is a descriptive novel of misery and despair in a small Italian town ruined and impoverished by the war. The poor and common man is shown overwhelmed by his problems of getting enough food and adequate shelter; and the sudden terror of bombing is glaringly dramatized with all its confusion, loneliness and fear. We are shown especially the adjustment problems of youth. Our four young heroes are drawn together as they try to make a life, literally over the bodies of victims beneath bombed buildings. Tullio, the fighter, becomes a Communist leader, finally killed in his struggle against oppression. Giulia, a drab and wistful girl, patiently plods through day after day until she perishes from her tuberculosis. Carla, a beautiful girl, becomes a prostitute to earn money, food and cigarettes; and her unhappiness, amounting to torture, makes her a bitter and irritable personality. Daniele joins this group through accidents of war; coming from somewhat better circumstances, he never quite hardens enough, and finally kills himself in desperation. An analysis of human suffering and loss of hope, the book shows people after a terrible impact—just waiting, hanging on.

Myths of War. By MARIE BONAPARTE. 161 pages. Cloth. Imago Publishing Company, Ltd. London. 1947. Price 10/6d.

Princess Marie Bonaparte discusses briefly and from the psychoanalyst's point of view a group of outstanding myths of the recent war. There is the famous myth of the corpse in the car, which she interprets as a human sacrifice to bring about peace; the tale of the guessed money, which seems to be a monetary sacrifice for peace; and the myth of the wine doctored to reduce sexuality, which seems to be an ancient propitiatory rite for the excesses of bloodshed. One of the most interesting is that of the mythical invasion of Britain which was foiled by pouring oil on the sea and setting the sea afire. It is interpreted as defense of Britain by the mother sea against the savage father.

This little collection is a valuable contribution by psychoanalysis to social science.

Proceedings of the XIth Annual Convention of the National Gastroenterological Association. Held in New York, N. Y., June 19-21, 1946. Samuel Weiss, M. D., F. A. C. P., D. Sc., editor. 187 pages. Paper. The Review of Gastroenterology. Vol. 14. 1947. Medical Authors' Publishing Co. New York. Price $2.50.

This convention dealt mainly with the organic side of major problems of diseases of the gastro-intestinal tract. Symposia on peptic ulcer, on infectious hepatitis and on gall bladder diseases are reported. They give the present-day state of clinical pathology and therapy of the subjects, presented by authorities in their respective fields. It is, however, significant and encouraging that a symposium on the psychosomatic aspect of gastro-intestinal diseases is included in this convention. The lively discussion reveals that it is still a long way before psychosomatic considerations will be established within the formal clinical, diagnostic and therapeutic routine. Of special interest is a paper on the gastro-enterologic aspects of psychosomatic medicine by S. A. Portis and an experimental study of changes in gastric function in response to varying life experiences by Stewart Wolf and H. G. Wolff.

Principles and Practices of the Rorschach Personality Test. By W. Mons. 164 pages. J. B. Lippincott Company. London. 1948. Price $4.00.

This short, clearly-written handbook is intended as a basic introduction to the study of the Rorschach inkblot method. Within its pages are chapters on theory, administration, scoring and interpretation, plus some case examples. Its main value seems to lie in its simplicity and concise form: It expresses no original views or thought and makes no significant additions to the more comprehensive texts of Klopfer and Kelley, Back, Bochner and Halpern, and others. The author claims, as his basic experience, a study of 1,000 children in the British counties, half of whom were abnormal and institutionalized. He feels this enhanced his understanding of adult problems since the "child is the father of the man," and so confidently goes on from this to the study of psychiatric battle casualties, and the writing of the present book.

He practically achieves his stated aim of sticking to reason and logic in his explanations, and remaining free from the dogmatic setting forth of principles. And therefore we find, for example, that the section on scoring is not a rigid system, but simply a necessary convenience clearly outlined as an anchoring point for understanding of the total personality picture. Dr. Mons does slight in his book an important aspect of the test, the inquiry period, which has been highly developed and perfected as a sensitive adjunct to the examination proper for bringing out meanings and under-

currents of the subject's original responses; he also barely mentions the testing-the-limits period in which the clinician can determine whether the subject will accept popular concepts or possibly be able to utilize color or shading determinants that had been neglected in the original protocol, or will be able to project movement to the blots. He does make the "helpful" suggestion of preserving the cards by wrapping them in a cellophane covering, a procedure which has been looked upon with horror by experts here. (It adds a shiny quality to the cards which may be distracting or may bring out new determinants in the record.) Another small point on which Dr. Mons' teachings differ from the findings of the accepted Rorschach authorities is his inclusion of the statement, "You may turn the cards any way you like" in his original instructions to the test subject. This is generally held to be unnecessarily suggestive and it has been found better to say nothing about card-turning at the beginning but to be encouraging when the subject questions on this matter.

The book is possibly adequate for one who is interested in the very barest principles of the Rorschach test that can be digested in short order. For those who will spend more time and effort, or who plan to go further into the subject, other published texts would be more satisfactory and give a more substantial understanding.

How to Think About Ourselves. By BONARO W. OVERSTREET. 205 pages. Cloth. Harper & Brothers. New York. 1948. Price $3.00.

"This is a book about our sense of personal worth. It is about the kind of relationship between the self and the world that makes life a clear triumph rather than a confused defeat." The volume is divided into three parts: "I. The Framework of Experience," "II. Linkage with Life" and "III. Peculiarly Human."

Mrs. Overstreet has a refreshingly lucid and interesting style which tremendously increases the value of the text. Her contribution should be read by all who are interested in a better understanding of the self, and particularly by those who are searching for methods of better adjustment, either for themselves or others, in this ever-changing world.

Where the Snow Was Red. By HUGH PENTECOST. 247 pages. Cloth. Dodd, Mead & Company. New York. 1949. Price $2.50.

Dr. Smith, Hugh Pentecost's new psychiatrist-detective, listens quietly to the evidence in a murder and solves the case by the method of Sherlock Holmes, Father Brown and Monsieur Dupin. This is a new twist to a psychological detective story and is a good one. The story itself is also good. Dr. Smith is a convincing character and we hope to see more of him.

CONTRIBUTORS TO THIS ISSUE

ERIC BERNE, M. D. Dr. Berne received his medical education at McGill University and took his psychiatric training at Yale. He attended the New York Psychoanalytic Institute prior to World War II and is now completing his psychoanalytic training in San Francisco. He has been on the psychiatric staff of Mount Sinai Hospital in New York. During three and a half years of military service, Dr. Berne was assigned to several hospitals in the western states. He is at present in private practice in Carmel, Calif.

Dr. Berne is a diplomate of the American Board of Psychiatry and Neurology and a fellow of the American Psychiatric Association. He is the author of *The Mind in Action*, a layman's guide to psychiatry and psychoanalysis, as well as of scientific articles on psychiatry and neurology.

HERBERT FREED, M. D. Dr. Freed is assistant professor of psychiatry at Temple University Medical School, Philadelphia, Pa., is visiting chief in psychiatry at Philadelphia General Hospital and is chief of child guidance of the child psychiatry clinic at the same institution. He is a graduate of Temple University Medical School in 1933 and served his internship and residency at Philadelphia General Hospital.

ERNEST SPIEGEL, M. D. Dr. Spiegel is head of the Department of Experimental Neurology at the Temple University School of Medicine, Philadelphia, Pa. He is professor of experimental and applied neurology at the same institution.

HENRY T. WYCIS, M. D. Dr. Henry T. Wycis, co-author with Drs. Freed and Spiegel of the article in this issue of THE QUARTERLY entitled "Somatic procedures for the relief of anxiety," is assistant professor of neuro-surgery at Temple University School of Medicine and Hospital.

JAN EHRENWALD, M. D. Dr. Ehrenwald, now in the private practice of psychiatry in New York City, is a graduate in medicine of the University of Prague in 1925, was associated with that university and the University of Vienna in psychiatry and neurology until 1931 when he went into private practice in neuropsychiatry in Czechoslovakia. From 1939 to 1945 he was in private practice as a psychotherapist in England, besides holding a number of public hospital appointments. Dr. Ehrenwald is a

fellow of the Royal Society of Medicine, a member of the Royal Medico-Psychological Association, a member of the American Psychiatric Association and other professional groups. Before coming to this country he was on a medical mission to Czechoslovakia. He is now an associate in psychiatry at the Long Island College of Medicine.

Dr. Ehrenwald is the author of more than 50 papers in neurology, psychiatry and psychotherapy. His book, *Telepathy and Medical Psychology*, was published in New York in 1948.

PAUL HOCH, M. D. Dr. Hoch is principal research scientist (psychiatry) at the head of the Department of Research Psychiatry at the New York State Psychiatric Institute. He is a faculty member of the Psychoanalytic Clinic for Training and Research and assistant professor of psychiatry at the College of Physicians and Surgeons, Columbia University. Dr. Hoch was graduated from the University of Goettingen in 1926. He was on the medical staff at the University Clinic in Neurology and Psychiatry at Goettingen where he became assistant professor of neurology and psychiatry. He also served at the Psychiatric Clinic in Zurich before coming to this country and joining the staff of Manhattan State Hospital. He was consultant in psychiatry to the United States Public Health Service early in World War II. Dr. Hoch has done extensive writing, teaching and research. He is a former president of the American Psychopathological Association and is chairman of the committee on therapy of the American Psychiatric Association. He is co-author of *Shock Treatment and Other Somatic Procedures in Psychiatry*, and editor of *Epilepsy*, of *Failures in Psychiatric Treatment*, and *Psychosexual Development in Health and Disease*.

PHILIP POLATIN, M. D. Dr. Polatin is a graduate of the College of Physicians and Surgeons, Columbia University. He received his psychiatric training at the New York State Psychiatric Institute and Columbia Medical Center. He then joined the staff of Pilgrim State Hospital, where he remained for four years before being appointed to the permanent staff of the Psychiatric Institute where he is now chief of female service. He is also a member of the faculty of the College of Physicians and Surgeons, Columbia University.

Dr. Polatin has done extensive research work in shock therapy and devised, with Dr. H. Spotnitz, a special modification of insulin shock treatment, called ambulatory insulin therapy.

He is the author of numerous publications and is co-author with his wife, Ellen C. Philtine, of the book *How Psychiatry Helps*.

BEN KARPMAN, M. D. Dr. Karpman was born in Russia in 1886. He was educated in America at Columbia University, the University of North Dakota and the University of Minnesota where he received his medical degree in 1920, later doing postgraduate work in Europe, chiefly in psychoanalysis. He is now chief psychotherapist at St. Elizabeths Hospital, Washington, D. C. He is the author of over 40 pieces of scientific work, including several books, and is editor of *The Journal of Clinical Psychopathology.*

PAUL HAUN, M. D., D. Med. Sci. Dr. Haun was graduated from the College of Physicians and Surgeons of Columbia University in 1931. He participated in the early research work on pancreatic adenoma at the Neurological Institute of New York, reporting on the largest series of operative cures published to that time. He was an instructor in neurology at Columbia University and in psychiatry at Harvard, after which he returned to his home in Colorado. Medical director of Mt. Airy Sanitarium in Denver prior to 1942, he served with an affiliated general hospital in the South Pacific during World War II. For the past three years Dr. Haun has been chief of the hospital construction unit of the psychiatry and neurology division, Veterans Administration. He is assistant professor of psychiatry at Georgetown University Medical School and has contributed various scientific articles for publication since 1935. He wrote *Psychiatric Sections in General Hospitals,* an architectural guide to the principles of psychiatric construction.

BERNARD E. GORTON. Bernard E. Gorton is a native of Vienna where he was born in 1926. He was graduated from Bowdoin College in 1947 and is at present a junior at the Syracuse University College of Medicine. He was at one time connected with the Institute of Living, Hartford, Conn. He plans to specialize in neuropsychiatry and hopes to do research in that field, particularly in psychosomatic medicine. His interest in hypnotism is with that purpose in view.

BENJAMIN MALZBERG, Ph.D. Dr. Malzberg has been director of the New York State Department of Mental Hygiene's Bureau of Statistics since April 1, 1944. He had been senior statistician and assistant director of the bureau since 1928. A graduate of the College of the City of New York and the New York School of Social Work, with A. M. and Ph.D. degrees from Columbia, he also studied on a field service fellowship in sociology at the University of Paris and University College, London. He was statistician of the New York State Board of Charities for five years before coming to the Department of Mental Hgyiene. He has written numerous books and scientific articles on the statistical aspects of mental disease.

JAMES A. BRUSSEL, M. D. Dr. Brussel, assistant director of Willard State Hospital, was born in New York City in 1905. He is a graduate of the college and medical school of the University of Pennsylvania and has done postgraduate work in psychiatry and neurology at Columbia University and the New York State Psychiatric Institute. Dr. Brussel is certified in both neurology and psychiatry by the American Board of Psychiatry and Neurology. He is a fellow of the American Medical Association, the New York Academy of Medicine, and a member of the American Psychiatric Association and various other professional groups.

Dr. Brussel was in the World War II army for six years, leaving service with the rank of lieutenant-colonel. He is a prolific writer, is the author of more than two dozen scientific papers, is a writer of popular prose and poetry, a crossword puzzle constructor and cartoonist. Dr. Brussel's hobby is music, and he plays the organ, piano, saxophone and tympani.

NEWS AND COMMENT

OVERHOLSER TO GIVE HUTCHINGS MEMORIAL LECTURE; SPECIAL AWARD IS ANNOUNCED

The first of a series of memorial lectures in honor of the late Richard H. Hutchings, M. D., former editor of THE PSYCHIATRIC QUARTERLY, author, teacher and administrator, will be conducted at Syracuse Medical College auditorium, Syracuse University, at 8:30 p. m. on Monday, October 3, 1949, it has been announced by Harry A. Steckel, M. D., former director of Syracuse Psychopathic Hospital and chairman of the permanent memorial committee set up to sponsor the lecture series.

The first lecturer will be Dr. Winfred Overholser, superintendent of St. Elizabeths Hospital, Washington, D. C., whose topic will be "Modern Trends in Psychiatric Treatment."

A special memorial award of $100, to be presented by the committee for an outstanding contribution to psychiatry from a public mental institution, has also been announced by Dr. Steckel. It is presented by an anonymous donor through C. Charles Burlingame, M. D., psychiatrist-in-chief of the Institute of Living, Hartford, Conn., who is a member of the permanent memorial committee; it is without restriction as to type of professional achievement and may be awarded by the committee at a time within its discretion. Scientific articles, reports or nominations for the award may be submitted to Dr. Steckel or to Newton Bigelow, M. D., editor of this QUARTERLY and director of Marcy State Hospital, who is secretary-treasurer of the committee.

Besides Drs. Steckel, Burlingame and Bigelow, members of the permanent memorial committee elected by the contributors are Samuel W. Hamilton, M. D., superintendent of Essex County Hospital, Cedar Grove, N. J.; Arthur W. Pense, M. D., deputy commissioner of the New York State Department of Mental Hygiene; Charles W. Hutchings, M. D., assistant director of Syracuse State School; and Nolan D. C. Lewis, M. D., director of the New York State Psychiatric Institute. The committee met in Albany, June 10, 1949, where officers were elected for a year and it was voted to make the memorial a series of annual lectures—a project favored by a large majority in a vote of contributors.

The Syracuse Medical College was selected as the place for the first lecture, as Dr. Hutchings taught there for many years. The special $100 award announced through Dr. Burlingame is in particular commemoration of Dr. Hutchings as an administrator. Dr. Hutchings was, first, superintendent of St. Lawrence State Hospital and later of Utica State Hospital for many years. He took particular pride in the large number of public and private mental hospital heads, besides other administrators, who

had trained during his superintendency at the latter institution. In announcing the anonymous award, Dr. Steckel commented that "Dr. Hutchings himself exemplified the outstanding part that state institutions have played in scientific progress in the field of mental hygiene."

The committee announces that the memorial fund is still open for contributions. An outstanding gift is announced as one of $500 voted by the board of directors of the Institute of Living. Individual contributions, from friends and former associates of Dr. Hutchings have ranged from $5 to $100. The fund, now totaling about $1,500, will be used solely for lectureship honoraria. The Oneida National Bank and Trust Company of Utica, N. Y., is trustee. All future contributions, from whatever source, will be used for lectureship purposes unless otherwise specified by the donor. The $100 award for psychiatric achievement was contributed as a separate fund from the lecture money.

SOCIETY FOR HYPNOSIS IS ORGANIZED

The Society for Clinical and Experimental Hypnosis has been organized with Jerome M. Schneck, M. D., department of psychiatry, Long Island College of Medicine, as chairman. Other officers are: Milton V. Kline, psychologist, Westchester County Department of Health; Hugo G. Beigel, department of psychology, Long Island University; and Henry Guze, department of animal behavior, American Museum of Natural History. Mrs. Shirley R. Schneck is executive secretary. Dr. Schneck states that the purpose of the society is to stimulate research and publications in hypnosis, that a yearbook is planned, and that persons wishing to contribute papers may submit them to Dr. Beigel, department of psychology, Long Island University, 380 Pearl Street, Brooklyn 1, N. Y.

DR. WHITEHORN NAMED PRESIDENT-ELECT OF PSYCHIATRIC ASSOCIATION

Dr. George S. Stevenson, medical director of the National Committee for Mental Hygiene, became president of the American Psychiatric Association for 1949-1950 at its 105th annual meeting in Montreal, May 23 to 27, 1949; and Dr. John C. Whitehorn, professor of psychiatry at the Johns Hopkins University, was named president-elect.

The secretary, Dr. Leo H. Bartemeier, and the treasurer, Dr. Howard W. Potter, were re-elected. Dr. William C. Menninger, president of the association for 1948-1949, became a councillor for a three-year term; and Drs. Francis J. Braceland, Lauren H. Smith and Mesrop A. Tarumianz were elected councillors for three-year terms. Dr. Coyt Ham was named an auditor in the only other new election of the meeting.

Some 400 papers were presented at the meeting by American and Canadian psychiatrists.

EBERHART SUCCEEDS KOLB IN MENTAL HEALTH POST

The resignation of Dr. Lawrence Kolb as director of Research Projects for the National Institute of Mental Health, and the appointment of Dr. John Eberhart to that position, effective July 1, has been announced by Surgeon General Leonard A. Scheele, Public Health Service, Federal Security Agency.

Dr. Kolb has accepted a position as consultant in psychiatry at the Mayo Clinic, Rochester, Minn. Dr. Eberhart has been chief psychologist of the training and standards branch of the National Institute of Mental Health. Prior to 1947, he was chief of the research design section, surveys division, Veterans Administration. He was formerly a member of the psychology faculty of Northwestern University and, for two years, was a post-doctoral fellow of the Social Science Research Council. He served as a naval officer during World War II.

As director of research projects, Dr. Eberhart will administer the program of grants in aid for research in the mental health field.

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DR. WILLIAM B. TALBOT JOINS INSTITUTE OF LIVING STAFF

William B. Talbot, M. D., for 14 years administrator of the New York Post-Graduate Medical School and Hospital, has left that post to become assistant to the president of the Institute of Living, Hartford, Conn., it is announced by C. Charles Burlingame, M. D., president and psychiatrist-in-chief of that institution. Dr. Talbot is a specialist in neuropsychiatry and makes the change, it is explained, to devote all his time to his specialty. At the New York Post-Graduate Medical School and Hospital, he is credited with having established a highly-developed program for the integration of neuropsychiatry in the general hospital service.

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DR. AXEL MUNTHE DIES IN SWEDEN AT 91

Dr. Axel Munthe, Swedish psychiatrist, author, and former personal physician to the King and Queen of Sweden, died in the Swedish royal palace, Stockholm, on February 11, 1949 at the age of 91. He had been a house guest of King Gustaf for the past 10 years. Dr. Munthe achieved international reputation as a psychiatrist as a comparatively young man; Charcot, Weir Mitchell and Krafft-Ebing were among those to send patients to him. He became physician-in-ordinary to the King and Queen of Sweden in 1903 and attended them until his retirement 30 years later. Dr. Munthe later became known as the author of his autobiographical "Story of San Michele," an international best-seller named for his home on the island of Capri. He devoted part of his royalties to the creation of bird sanctuaries in Sweden and on Capri, and turned his Capri home into a museum, with receipts going to charity.

STATEMENT ON ELECTRIC SHOCK ISSUED

Because of confusion caused by acrimonious public discussion of the position of electric shock in the therapy of mental disorders, a joint statement on the subject was authorized in March by Dr. William C. Menninger, president of the American Psychiatric Association, and Dr. Nathan K. Rickles, president of the Electro-Shock Research Association. It follows:

"Electroshock therapy is accepted today as the most effective physical agent in the successful treatment of the majority of the affective psychoses when given by properly qualified psychiatrists.

"It should be stressed that at no time is electroshock advanced as a cure-all, but only as one very effective agent in selected classes of mental illness. It should always be preceded by a complete and thorough psychiatric study of the patient which includes an evaluation of his mental and physical status, his family and his environment, and also be followed with adequate psychosocial study and psychotherapeutic guidance."

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PHILIPPINE PRACTITIONERS APPEAL FOR BOOKS

Citing generous American private aid in the rehabilitation of the library of the University of the Philippines, the Philippine Federation of Private Medical Practitioners has asked for similar help to re-create the "public library" for the use of medical practitioners which was destroyed during the war. Not only this library, but the private libraries of many Manila physicians and surgeons were destroyed in the fires which accompanied the Japanese expulsion from Manila; and the profession generally lacks research and reference material. Books and periodicals, even in "second-hand condition," are sought therefore. The association asks that any donations be addressed to: The President, Philippine Federation of Private Medical Practitioners, P. O. Box 632, Manila, Philippine Republic.

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DR. JONAS BORAK DIES ON LECTURE PLATFORM

Dr. Jonas Borak, widely-known New York radiologist who was once an assistant to Sigmund Freud, died of a heart ailment on April 4 while delivering a lecture at the New York Academy of Medicine. A refugee from Nazi-held Vienna in 1939, Dr. Borak had been imprisoned by the Nazis, only to be released after the American Medical Association had started investigating reports that he had committed suicide. He said his arrest was caused by his authorship of an article to prove there is no such thing as a Jewish "race." A member of Fidelity Lodge, Free Sons of Israel, that organization honored him by devoting a special issue of its publication to him the week before his death. He was 56 years old.